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ABSTRACT

Dissertation abstracts describing research on a wide variety of topics in bilingual education are presented. This publication is designed to provide background material for bilingual educators as well as practical procedures for bilingual teachers, administrators, counselors, and evaluators. The titles were acquired by using the two broad descriptors of bilingual and bicultural. The dissertations are presented under the following divisions: program management, assessment, language curriculum, and affective domain. The following topics are covered: scope, history, and legislation; development; bilingual program models; comparative studies (bilingual/monolingual); teacher education; investigations beyond North America; language proficiency; intelligence; acquisition and development; concept and development; language and culture; linguistics; sociolinguistics; reading and language arts; content fields; special education; career education; audio-visual media; self-concept; and attitudes toward bilingual education. (SW)

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ED169757

BILINGUAL/BICULTURAL EDUCATION: TITLES AND ABSTRACTS OF DOCTORAL DISSERTATIONS

U.S. DEPARTMENT OF HEALTH,
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INTRODUCTION

Originally published by University Microfilms International in *Dissertation Abstracts International*, these dissertation abstracts describe research on a wide variety of topics in bilingual education. They provide background material for bilingual educators as well as practical procedures for bilingual teachers, administrators, counselors, and evaluators.

The titles were acquired utilizing two broad descriptors—bilingual and bi-cultural—to access entries from the files.

While the advantages of using this approach are obvious, there is the drawback that many dissertation titles impinging directly on the various areas of bilingual education are inaccessible by this strategy.

The titles, then, do not represent an exhaustive listing of studies relating to the present topic. Only an item-by-item search will reach the level of thoroughness that is the ideal.

The section headings and the manner of organization are those of the National Dissemination and Assessment Center, Los Angeles. They are designed to assist the user in finding research that is germane to the user's particular interests easily and quickly. Because some individual studies cut across traditional academic disciplines, users may find that their special interests are dealt with in more than one section. Within each section, abstracts appear according to the year of the dissertation's completion, with those completed more recently occurring towards the end of the section. In sections where there is more than one dissertation in a given year, abstracts appear in alphabetical order by the author's last name.

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I. PROGRAM MANAGEMENT

SCOPE, HISTORY, AND LEGISLATION

BILINGUAL EDUCATION IN CERTAIN SOUTHWEST SCHOOL DISTRICTS

(Publication No. 20,041)

Fidel Garcia Baca, Ph.D.
University of Utah, 1956

Chairman: Dasil A. Smith

STATEMENT OF THE PROBLEM

The problem of this dissertation was to survey the current status in the education of bilingual children in five southwestern states of Arizona, California, Colorado, New Mexico, and Texas with reference to: 1. Attendance, 2. Segregation of Pupils, 3. Special Courses of Study employed, 4. Special texts and tests used, 5. Special services, and 6. Community attitudes toward the education of the Spanish-speaking pupils and adults.

SPECIFIC AREAS OF INVESTIGATION

The study attempted to answer the following questions:

1. What proportion of the school population was Spanish-speaking in the states of Arizona, California, Colorado, New Mexico, and Texas?
2. Was the Spanish-speaking population principally permanent or itinerant?
3. To what extent was segregation of Spanish-speaking pupils practiced?
4. What special courses of study, special texts, and standardized tests were used with Spanish-speaking children?
5. How did the age of Spanish-speaking beginners compare with that of the Anglo-American children?
6. What type of special services was employed to bring the Spanish-speaking home into closer relationship with the school?
7. What was the attitude of the public in general toward any effort to educate the Spanish-speaking population?

8. What factors were generally found, if any, which contributed to the need of adequately educating the Spanish-speaking children in the public schools of the aforementioned states? 205 pages. \$2.70. Mic 57-1617

THE NATURE AND EFFECTIVENESS OF BILINGUAL EDUCATION PROGRAMS FOR THE SPANISH-SPEAKING CHILD IN THE UNITED STATES.

(Order No. 69-22,128)

Solomon Hernández Flores, Ph.D.
The Ohio State University, 1969

Adviser: Professor Edward D. Allen

The purpose of this study was to determine the nature and effectiveness of bilingual education programs for Spanish-speaking children in the United States. This study also undertook to review the literature in bilingual education from the standpoint of philosophical, sociological, psychological, and linguistic considerations. Several achievement studies are reviewed and their findings are reported. In addition, three appendixes incorporate data and suggestions for integrating materials, teacher education, and radio and television into bilingual programs.

In order to gather the data necessary to answer the questions posed by this investigation, several state foreign language supervisors, city consultants, and prominent scholars in the field of bilingual education were consulted regarding the rationale or criteria for setting up bilingual programs. From the information supplied by these educators and from the review of the literature in bilingual education, a questionnaire was devised to show the operational models and strategies involved in the administration of bilingual programs. Briefly, the following factors were taken into account by the questionnaire: Administrative support, kind of community, type of school, statement of objectives, time and treatment of languages, placement procedures, articulation, teaching strategies, radio and television, extra-curricular activities, acculturation, staffing, teacher training, community involvement, materials, library use, evaluation procedures, and administrator comments and conclusions.

The questionnaire was sent to the supervisor or director of the bilingual program at five different elementary schools. The schools are located in Miami,

Florida; The Bronx, New York; Del Rio, Texas; Laredo, Texas; and San Antonio, Texas. The returned questionnaires were examined and the information recorded. The receipt of these questionnaires was followed by an on-the-spot visitation to each of the five elementary schools. Although the study is limited to five bilingual programs, it is believed that the depth to which these programs were examined provided sufficient data to determine the operational theories and practices commonly used by a majority of so-called "real" bilingual education programs in this country. The five programs examined in this study represent instructional strategies for the three major Spanish-speaking ethnic groups in the United States: the Cubans, the Puerto Ricans, and the Mexican-Americans.

The conclusions of this study are summarized under the following categories: theoretical considerations, successful results, inherent problems, and future expectations. Among the most interesting conclusions of this study are the following: (1) As of the spring of 1969, the number of "real" bilingual education programs in the United States was approximately twelve. (2) The two largest cities, New York City and Chicago, have only one bilingual program each. (3) Based on the evaluations of these five programs by local and non-local agencies, the effectiveness of these programs has been clearly established. (4) The general feeling among most educators of the non-English-speaking is that we are at last near a solution for the educational problems of these children. Community acceptance has become more prevalent everywhere. (5) The usual problems of availability of materials, evaluation procedures, teacher training, recruitment, financing, etc., continue to be chief concerns for the advocates of these programs. (6) Radio and television have been neglected as partial answers to the transmission of instruction via a central control station. (7) Each bilingual program contains some outstanding feature not found in the other programs, or carried out in such a superior manner as to be conspicuous.

The conclusions set forth in this study are followed by a list of recommendations pertaining to school policy, materials, methodology, evaluation, teacher training, and research. The final section in this study contains guidelines for setting up an exemplary bilingual education program.

M \$3.00; X \$8.60. 188 pages.

THE NEED FOR BILINGUAL EDUCATION IN THE SCHOOLS OF VERMONT

(Order No. 69-19,083)

Daniel Giles O'Connor, Ed.D.
University of Massachusetts, 1969

Adviser: Dr. Ovid S. Parody

This study attempted to determine the number of pupils of limited English-speaking ability attending public and parochial schools in the State of Vermont; the schools of such attendance; the non-English mother tongues spoken by children; and their economic status which may determine their eligibility for benefits contained in Public Law 90-247, Elementary and Secondary Education Act, Title VII known as the Bilingual Education Act.

A questionnaire was used as the study instrument. It was sent to a population of 505 schools of which 425 were elementary and 80 secondary. An 85.9 percent response was received—362 from elementary schools and 72 from secondary schools. Of these 434 schools, 159 reported activity with which the study was concerned or thirty-six point six (36.6) percent of the answering schools reporting children with limited English-speaking ability as used in this study.

As a result of the study, tables were developed which identified schools within the State enrolling children with limited English-speaking ability who might qualify for participation in the benefits of the Bilingual Education Act. Enrollments of children with limited English-speaking ability were compared to school enrollments. The concentration of such children in terms of a number and the percent of school enrollment were obtained to assist the Vermont State Department of Education in setting priorities based on need in its recommendations on the Bilingual Education Act applications received from local school districts.

Among the conclusions of the study were:

- (1) There was an inverse relationship between the size of a school's total enrollment and its proportion of children with limited English-speaking ability.
- (2) Through a replication of the study instrument, increase in the report of the number of children identified as being in the target group could be obtained.
- (3) Some of the criteria for establishing the eligibility of a school district's participation in the Bilingual Education Act was not readily available in school districts.

(4) Twenty-two different languages were among the non-English mother tongues used by children in grades one to twelve in the schools of Vermont, of which the most prevalent was French.

(5) The highest concentrations of students with limited English-speaking ability were found in schools near Vermont's northern border.

(6) In some Vermont schools the proportion of children with limited English-speaking ability at the poverty level was more than twice that of the national average.

(7) The need to provide educational programs for children with limited English-speaking ability was found in 159 schools.

(8) There were 47 schools in Vermont which enroll children that may be eligible for benefits contained in the provisions of the Bilingual Education Act.

The investigator made ten recommendations in the study which had implications for persons and agencies at the federal, state, and local levels of education which were intended to improve educational opportunity for children with limited English-speaking ability.

Proposals for further research in five specific areas are also contained in the study along with a recommendation that further research be done on the problem while it remains an obstacle to equal educational opportunity.

A survey of pertinent literature, international in scope, seeks to set both methodology and conclusions in a perspective enlarging the Vermont focus of the problem. Materials introduced treat linguistic, pedagogical, socio-economic, political and psychological factors indissociable from bilingual education. The same are concentrated in Chapter Four and detailed as bibliography in *SOURCES CONSULTED*.
M \$3.90; X \$13.75. 301 pages.

AN INQUIRY INTO THE EFFECTS OF BILINGUALISM ON NATIVE AND NON-NATIVE AMERICANS, VIEWED IN SOCIOPSYCHOLOGIC AND CULTURAL TERMS

Franklin Richard Mander, Ph.D.
University of Illinois at Urbana-Champaign, 1971

THE PROBLEM

The purpose of the study was to define and to determine the effects of bilingualism and second language studies on native and non-native bilinguals,

giving particular stress and emphasis to the sociopsychological and cultural elements and to the roles which these have played on the personality of bilinguals. This study was divided into four parts: (1) to describe the identity and characteristics of the bilinguals; (2) to examine, analyze and evaluate critically the workings of bilingualism; (3) to examine the theoretical bases for interpreting the effects of bilingualism; (4) to examine the effects of the sociopsychological and cultural experiences on the behavior of the bilinguals.

THE PROCEDURES

For the first three parts of the study, historical and sociological sources, including personal histories and autobiographies of marginals were used to trace the history and identity of bilinguals, mainly of the later immigration. The United States Government Census Reports were searched as they related to immigrants, their American offspring and the foreign languages spoken at home. Results of studies concerned with the status of foreign language instruction and learning on the high school and college levels were set forth in a narrative account. Also included were empirical, field and theoretical studies treating the effects and after-effects of foreign language study and bilingualism.

For the fourth part of the study, additional data were furnished by an evaluation of studies in the areas of contemporary cultural anthropology, testing, psychology, plus other sociopsychologic and cultural factors relating to the foundations of the personality of the bilingual. Psychiatric, medical and historical data were sought to make the final evaluations of the present status and condition of bilingualism and the bilingual.

CONCLUSIONS

1. All bilinguals and their American-born offspring were subjected to overwhelming, irresistible pressures by the dominant American society to the Americanized and to be assimilated.

2. Free mass education, accompanied by the sociocultural conditioning of America, and followed by anti-foreign crusades conducted by earlier immigrants, played a determining role in the destruction of bilingualism.

3. This resulted in the rise of a large army of native-born marginals driven to excesses of protective coloration and to a denial and/or abandonment of their cultural and linguistic heritage. The rapid pace toward Americanization also brought on a condition of cultural disorientation and social disorganization.

4. The inadequate tools of psychologists, psychometricians and others who

pronounced the ill effects of bilingualism and the low performance of the second-generation immigrant contributed markedly toward the deflation of foreign languages and added a new dimension of hatred to the prejudices of previous generations—that the ethnic stocks of eastern and southeastern Europe were inferior to the supposedly “Aryan” stock of northern Europe and the British Isles.

5. Since 1924 there was a shift toward total Americanization seeking to stamp out cultural diversity and to drive the ethnic minorities to accept an American society based on a common language and culture.

6. The second-generation immigrant found himself caught between two pressures. The pressure of the dominant community imposed economic, social and academic discrimination upon him. The inner pressure of marginal status subjected him to emotional assaults and drove him to ape and to accept the ways of the dominant culture. As a marginal, he had two cultures but had to make peace with only one, to which he has limited narrow access.

7. Although the study indicates that the assimilative forces of American life are most powerful, optimistic merit rests in Marcus Hansen's observation “what the son wishes to forget the grandson wishes to remember.”

Order No. 72-12,282, 165 pages.

BILINGUAL BICULTURAL EDUCATIONAL CIVIL RIGHTS: THE MAY 25TH MEMORANDUM AND OPPRESSIVE SCHOOL PRACTICES

James V. Gambone, Ph.D.
The University of New Mexico, 1973

This dissertation presents an interdisciplinary approach to the area of educational civil rights and bilingual/bicultural education.

Chapter I provides a compilation of legal precedents that can be used in challenging existing oppressive school practices. The second chapter deals more specifically with the reality of oppression. Words and formulations in Washington take on new dimensions when they reach Beeville, Texas. The third chapter examines the goals and definitions of current bilingual/bicultural programs. There is the strong suggestion that these programs will continue to be ineffective as long as they remain within the definitional framework established by the oppressor. The fourth chapter is a comprehensive resource

directory for those individuals interested in pursuing the question of bilingual/bicultural civil rights and a more politically oriented educational pedagogy.

Hopefully, this work can be used to promote educational change and a continuing struggle against oppression.

Order No. 74-11,798, 133 pages.

AN ANALYSIS OF THE BILINGUAL EDUCATION ACT, 1967-68

Gilbert Sanchez, Ed.D.
University of Massachusetts, 1973

Director: Dr. Arthur W. Eve

The proposed study is intended to add new knowledge and information about one aspect of education reform: The Bilingual Education Act of 1967-68.

The study gathers a wide variety of existing data regarding the passage of the Bilingual Education Act from the literature, from governmental documents, and from in-depth interviews from selected persons who were involved in the design and passage of the Bilingual Education Act.

In addition, a questionnaire was designed to solicit responses from the above persons. Said questionnaire was designed with the intent of ascertaining the individual respondents' perceptions in the areas of the passage of the Bilingual Education Act.

The analysis of the findings treats each section of the questionnaire as it appears organizationally within the instrument: 1. Biographical and professional characteristics. 2. Significant events leading to the passage of the Bilingual Education Act. 3. Perceptions and opinions of the participants regarding the Bilingual Education Act prior to its enactment. 4. Perceptions and opinions of the participants regarding the Bilingual Education Act's first two years of implementation by the United States Office of Education.

The document is organized in the following:

Chapter I. Introduction

Chapter II. Review of the Literature and Related Research

Chapter III. Methods and Procedures

Chapter IV Analysis of Findings

Chapter V. Summary, Conclusions and Recommendations

Order No. 73-32,183, 274 pages.

THE BILINGUAL-BICULTURAL COMMUNITIES AND THE TEACHING OF FOREIGN LANGUAGES AND CULTURES IN THE UNITED STATES

Supervielle, Alfredo Fernández, Ph.D.
The Florida State University, 1973

Major Professor: M. Phillip Leamon

This study proposes that American public schools and community colleges which are in bilingual and bicultural communities teach, at all levels of the educational process and together with the English language and American culture, the second languages and cultures of those communities. It also suggests that the linguistic and cultural resources of the communities be utilized to the maximum possible extent in those teachings. The study asserts that the democratic quality of American education would be enhanced by proceeding in this manner, thus benefiting the American society at large and all the students concerned regardless of their ethnic background.

The study sets the foundations for its proposals in the areas of social philosophy, educational philosophy, anthropology, sociology, psychology and linguistics. Searching into the works in those fields by Dewey, Hallowell, Kluckhohn, Despres, Lambert, Fishman, and others, the study attempts to demonstrate through logical argumentation the support of their ideas for its suggestions. Finally it offers a schematic presentation of how the suggestions could actually be implemented in school.

Order No. 74-18,044, 135 pages.

NEGOTIATING CHANGE IN THE BOSTON PUBLIC SCHOOLS: BILINGUAL EDUCATION

Manuel Teruel, Ed.D.
Harvard University, 1973

The purpose of this thesis is to explore community conditions and activities and some of the conditions and practices in the Boston Public Schools, and to systematically trace the sequence of events and their possible effects (in the form of an ongoing experiment) so that they may be better understood and taken into account when any attempts at change are being considered.

Puerto Ricans are a relatively new population on the Boston scene, most of them migrating to Boston from rural agricultural areas in Puerto Rico. Many of them have little formal education, a high incidence of serious mental and non-mental illness, a high rate of unemployment, and live in poor and inadequate housing.

Although there has recently been much fanfare, they are, for the most part, neglected and, comparatively speaking, on the bottom of the scale in terms of political power.

In very general terms, the problem is one of attempting to understand the nature of the interaction between the Puerto Rican Community's educational needs, and the Boston Public School System's response to these needs.

I hope that my experience, within the Boston Public Schools and as a representative of the population in question, will provide a source of insight and understanding to the problem of change and the acceptance of change, so that when change is introduced or attempted, it will have a greater likelihood of being received, planned for, and implemented, in such a way, that its chances of success will be maximized.

Order No. 73-30,197, 167 pages.

EDUCATION, GENERAL

HISTORICAL DEVELOPMENT OF A BILINGUAL PROGRAM IN A NORTHERN URBAN SOCIETY

Arredondo, Joe, Ed.D.
Indiana University, 1974

Chairman: Dr. Maurice E. Stapley

Many large urban school systems throughout the United States have been and will be grappling with the problem of educating the Spanish-speaking child. Many programs for this minority group have been written asking the federal government to provide funds for their implementation. The purpose of this study was two-fold: (1) to document a bilingual program in the Gary School System from its inception into a funded program, and (2) to develop insights into the needs of bilingual children and the effects of total bilingual program upon the Spanish-speaking students in Gary and its immediate areas.

The data used in the development of this study were: taped interviews with Miss Catherine Hughes, Miss Carmen Perez, and five students; written statements submitted by Miss Dorothy Hawkins, Mrs. Rebecca Sanchez, Mr. Nick McDonald and Mrs. Marie Morales; and research records and materials from the Gary School System.

The above sources of data and information were compiled and substantiated by newspaper articles, weekly radio broadcasts, the initial funded proposals, student records and participants' reports. Included also are the summaries of the success of the initial program and evaluations of the federally funded program, with implications it had on the Gary School System and the surrounding area. This study concludes with the author's recommendations.

An examination of the data revealed that the initial program in Gary was of great value as a forerunner of the funded program. The results of the total bilingual program in the Gary School System indicated a positive relationship between the bilingual program, student success, and increased ability to assimilate knowledge and skills. Students demonstrated a positive self-image and showed improvement in study habits, growth in acceptance of responsibility, and a drop in absenteeism. The data further indicated, following the bilingual experience, that measures of intelligence showed Spanish-speaking children to be at a level equivalent to other children in the school system. The study also demonstrated the effectiveness of bilingual education in establishing a "workable" program for utilization by other school districts.

The study provided strong support for developing and adopting bilingual programs in working with Spanish-speaking children. The funded program in the Gary School System is a framework upon which districts can build their own appropriate bilingual program. Curriculum planning groups must take into consideration when planning and writing curriculum guides, the Spanish population in their own area, and provide detailed procedures to enable the teaching staff to develop and implement the program. This commitment is especially important in order to fulfill the objective of helping each child achieve his greatest potential.

We are only now beginning to be aware of the great potential of bilingual education, and our task is a continuous search for better ideas with which to improve the bilingual programs for the future.

Order No. 75-5541, 296 pages.

EDUCATION, LANGUAGE AND LANGUAGES

BILINGUAL EDUCATION BIBLIOGRAPHY

Salazar, Teresa Ann, Ed.D.

University of Northern Colorado, 1975

STATEMENT OF THE PROBLEM

On January 17, 1967, a historic bill (S.428) was introduced in the Senate of the United States by the senior senator from Texas, Ralph W. Yarborough. This was the first bilingual education bill of this scope ever to be introduced in the Congress of the United States. It aimed at the redirection of the traditional educational approach which children whose home language was other than English had experienced.

The legislation was passed in good faith, but it has failed to live up to its promise. After a careful examination of the failing factors, a number of reasons emerged as the causes: educators realized that the problem and its solution were more complex than they had envisioned. When the money and support became available the recipients of these grants were not adequately prepared. The field of bilingual education lacked trained personnel; there were few textbooks written on bilingual education; testing materials and teaching techniques were not developed; and possibly the biggest void lay in the understanding and administration of bilingual programs. These failures and drawbacks have provided the stimulus for future planning in all phases of bilingual education.

PROCEDURE OR METHOD

This bibliography was undertaken after the author had several years of experience in bilingual education, and had examined the field of resources available.

The research revealed that it was possible to select areas which were rele-

vant to the present state of the art, and also represented a historical perspective.

The compilation of this bibliography required extensive research, utilizing the resources of many libraries, an E.R.I.C. search, and the use of the Education Index plus additional sources. Bibliographies and lists of materials were requested from state departments of education, bilingual projects and personal contacts were made with persons knowledgeable about bilingual education.

RESULTS

The bibliography is composed of nine categories that provide a historical base for bilingual education in the United States. The nine categories include: books related to bilingual education, periodicals, papers and speeches presented, reports, documents, research studies, curriculum guides, selected bibliography on culture, literature and history and additional bibliographies.

The references deal with the educational needs of many populations, the controversial aspects of bilingual education, a national consciousness and commitment towards educational reform, educational opportunity and equality, curriculum efforts and selected bibliographies for particular purposes.

The bibliography consists of a collection of educational resources, and identification of those individuals responsible for the early and present efforts in bilingual education.

CONCLUSIONS

This bibliography should prove to be a useful document to many people in various stages of bilingual education. The purpose of the bibliography is that it be of immediate use to those persons in the field, and also to those that are in the process of preparing for future careers in bilingual education.

It is the hope of the author that this document be instrumental in promoting the field of bilingual education, and that it serve as a valuable resource.

Order No. 76-224, 127 pages.

BILINGUAL-BICULTURAL EDUCATION IN TEXAS ELEMENTARY PUBLIC SCHOOLS, 1930-1975

Sosa, Alonzo Hernandez, Ed.D.
East Texas State University, 1975

Adviser: Allen H. Kavanaugh

PURPOSE OF THE STUDY

The purpose of this study was to trace the historical development of bilingual-bicultural education in Texas public elementary schools from 1930 to 1975. Also a survey instrument was constructed and distributed statewide to selected school districts eligible for bilingual education in order to determine some of the current basis components of bilingual instruction.

PROCEDURE

Twelve questions were formulated to represent a statement of objectives basic to the research. The data for the review of the literature of a historical nature were obtained from professional journals, government documents, and agencies created specifically to promote bilingual-bicultural education at the state and national levels. For the descriptive part of the study, data were gained from the questionnaire utilized and by first-hand visits to schools.

FINDINGS

During the 1930's and 1940's, the Mexican-American child found himself in an alien, unsettling world in school, and the dropout rate was exceedingly high. By the 1950's, compensatory education programs for the culturally deprived were made available; however, the Spanish-American child was still generally unsuccessful in school. Demands were placed on the child, sometimes forcibly, to relinquish some of his cultural patterns, especially his language heritage, and he was urged to assimilate and acculturate into the American mainstream. However, a change in the 1960's had a tremendous impact on the education of the Mexican-American.

In the early 1960's, a culturally democratic educational environment became possible. Innovative bilingual education programs took into account the language, heritage, values, thinking and learning styles which the Mexican-American children brought from home. For the Mexican-American, Spanish became

a means to develop a positive self-identity and at the same time gain proficiency in English and Spanish.

Other factors contributed to the acceptance of bilingual education. The civil rights movement included issues of inequality of educational opportunity, segregation, and attempts at changing policies that made the native language a learning handicap. The U. S. Commission on Civil Rights, favorable rulings in court cases affecting Mexican-Americans, and various interest and pressure groups helped curb the discriminatory practices and alleviated some of the degrading conditions for the Mexican-Americans.

The state and federal governments were also influential in bringing about change. Undoubtedly, the biggest impetus for bilingual education came from the federal government in the form of the Elementary and Secondary Education Act. The Texas Education Agency, on the other hand, made it a state responsibility to help meet the needs of the Mexican-American children in the public schools. This was made possible through Senate Bill 121 that amended the Texas Education Code, effective August, 1973.

Finally, proponents of bilingual education helped in bringing about change in the education for the Spanish-speaking. Outstanding leaders, such as Manuel, Sanchez, Andersson, and Carter, through their writings, helped make bilingual education a reality.

The state-wide survey revealed a variety of materials, techniques, and methods being used in bilingual instruction. Bilingual classes were found in grade levels ranging from pre-kindergarten to grade eight. Audio-visual materials were being utilized, including innovative television programs for bilingual children. Reading and vocabulary building skills were given top priority in the amount of time devoted to teaching these areas in Spanish, in both oral and written language activities. Finally, teachers were using a variety of possibilities allowed by the Texas Education Agency in order to be certified or to obtain an endorsement to their certificates.

CONCLUSIONS

Historically, bilingual education had a long period of development. There seemed to be five basic factors that helped bring about the change: advocates who never gave up hope; social and political organizations acting as interest and pressure groups; the Chicano movement; the civil rights movement; and finally, educators who proposed a new cultural democracy so vital to the maintenance of a pluralistic cultural society in Texas.

Order No. 76-4660, 114 pages.

ASSUMPTIONS UNDERLYING BILINGUAL EDUCATION IN THE U.S.—PATTERNS OF ACCULTURATION AND ASSIMILATION IN LANGUAGE POLICY

Castro, Raymond E., Ed.D.
Harvard University, 1976

Despite the fact that almost 20% of the U.S. population claims a non-English mother tongue, legislation like the Title VII of the 1965 Elementary and Secondary Education Act—the Bilingual Education Act—represents the first nation-wide recognition of the linguistic needs of minority groups. But the ill-defined goals identified with Title VII together with the manner of their implementation created much confusion about the purpose of the bill. Until recently, practitioners were unable to identify the source of frustration associated with working in a program characterized by unclear goals. After more than five years of implementation, however, the scramble to seek refunding has caused some participants to reflect on program purposes as well as accomplishments. This work is an attempt to increase understanding of the purpose(s) and potential of this most recent piece of language policy.

Because the purpose of the bilingual education movement lacks clarity, the author speculated that an examination of the history of U.S. language policy would contribute to greater understanding of this phenomenon. A review of language policy history is presented; it examines whether bilingual education is likely to foster either assimilation or pluralism, since language policies consistently have been used to sanction discrimination against certain groups.

But to focus on the tension that exists between assimilation and pluralism is to overlook the greater tension that exists within people themselves, i.e., most people want *both* to increase economic/political benefits *and* preserve native language/traditional values. The guiding question is: Given the history of U.S. language policies what realistically can be expected from bilingual education programs to relieve this tension?

This work differs from other studies on bilingual education in that: a. it offers the language of instruction question as an illustration of the interrelationship of more basic political and philosophical issues in the U.S.; other studies recognize political/philosophical issues but consider them only in relation to how they further or impede dual language instruction (Chapter II), b. it employs a historical perspective in analyzing bilingual education as a piece of social policy (Chapter III), c. it focuses on the policy issues related to bilingual education (Chapter IV), and d. it attempts to work towards synthesis of thought on bilingual education by treating implementation issues as well as policy (Chapter V).

Based on a review and analysis of U.S. language policy studies, three hypotheses were formulated: 1. that an examination of language policies in the U.S. will not reveal attempts on the part of policy makers to use English as a sanction for controlling the distribution of economic and social benefits. 2. that linguistic minority groups did not respond to acculturationist language policies designed to impose a different language and accompanying set of values with attempts to mitigate their impact. 3. that bilingual education is neither a piece of policy characterized by an acculturationist bias nor a program or form of policy implementation which imposes acculturation on its target groups.

The examination of U.S. language policy revealed that none of these hypotheses could be substantiated. The experience of both immigrant and native groups together with the writings on Title VII provide a wealth of contradictory evidence; as a result, all three hypotheses were rejected by the author.

These findings suggest that much more than the right to language choices is at stake. For the individual, the issues focus on increasing social and economic benefits while retaining a sense of self-pride; for society, the controversy centers on how to meet responsibilities for the welfare of all people without destroying the cultural richness of some in the process. The challenge, then, is to work toward both assimilation and cultural pluralism. A language policy which works in this way must go beyond the level of institutions (e.g., education) to reflect a commitment at the societal level. As a policy, societal bilingualism would provide greater opportunities for assimilation by encouraging the use of significant non-English tongues in daily transactions. This recognition of different language and cultural groups also would contribute to pluralism.

In the absence of such policies, existing bilingual programs cannot realistically be expected to work toward assimilation and pluralism. The very complexity of efforts to achieve both assimilation and pluralism requires a new kind of organizing. If some bilingual education programs make radical changes in the conception of purpose and form of organization, however, then policies like societal bilingualism may be partially implemented at the local level and may even be developed nationally as a result of local pressure.

Order No. 76-30,195, 136 pages.

THE ROLE OF THE NEW JERSEY COALITION FOR BILINGUAL EDUCATION IN THE ENACTMENT OF THE 1974 NEW JERSEY BILINGUAL EDUCATION LAW

Freda, Robert Anthony, Ed.D.
Rutgers University the State University
of New Jersey (New Brunswick), 1976

Chairperson: Eliane Condon

On January 8, 1975, New Jersey became the fourth state in the nation within a period of three years to adopt mandatory bilingual education legislation. This study analyzes the role of the New Jersey Coalition for Bilingual Education and reports on the social, educational, and political events at the national and state levels which contributed to these successful legislative accomplishments.

The context of bilingual education is first established with an overview of demographic and statistical data describing the immigration patterns, the economic and educational achievement of select linguistic and cultural minorities and the prevailing numbers of different non-English-speaking ethnic groups found in New Jersey and throughout the nation. These data demonstrate the existence of an historical and current need for, as well as the educational value of, bilingual/bicultural education in the United States. Further substantiation is provided with a description of federal government sponsored education programs and judicial decisions affecting bilingual education and with a review of pertinent literature and information sources dealing with the resurgence of national interest in ethnicity and cultural pluralism. A by-product of this review is to highlight the multiple values of multi-lingual, multi-cultural education for all non-English-speaking Americans, thereby negating the popular misconception that bilingual education in the United States satisfies only the needs of select, economically deprived, linguistic minorities. In addition, a detailed comparative analysis of the four existing state-level mandatory bilingual education laws prior to the enactment of the New Jersey law is provided. Particular emphasis is placed on the Massachusetts law which served as a model for the New Jersey legislation.

The major portion of the study analyzes the particular events in New Jersey which gave rise to the unique process in educational politics undertaken by the New Jersey Coalition for Bilingual Education. This broad-based, edu-political group organized by the author set as its goals the planning and implementation of various ways and means to promote political action for the enactment of a mandatory bilingual education law modeled after that adopted

in Massachusetts. The achievement of this goal occurred partially as a result of direct lobbying, but primarily as the outcome of the Coalition's success in securing the cooperation and support of major educational influence groups in New Jersey such as the New Jersey Education Association, the New Jersey School Boards Association, the New Jersey State Department of Education, the Rutgers University Graduate School of Education, and other special interest groups from the educational, business, and ethnic communities.

The format selected for the historical component of the study consists of a narrative chronology with 165 entries identifying the sequence of events which culminated in the passage of a mandatory bilingual education law in New Jersey. The activities of the Coalition are then analyzed in terms of six descriptive statements (indicators) designed to reveal the results of each Coalition undertaking and its contribution toward the realization of its legislative goal.

Findings indicate the major role of the New Jersey Coalition as being that of a facilitating body bringing together normally non-affiliated forces from the educational, ethnic, and business communities and channeling their efforts toward the creation, promotion, and passage of the bilingual education law. An additional although minor role of the Coalition is also identified as that of a direct lobbying force with the New Jersey State legislature.

In view of the demonstrated success obtained by the New Jersey Coalition for Bilingual Education in achieving its goals, the operating guidelines actually utilized by this group are outlined in the concluding chapter.

These are intended to serve as a tentative model of community intervention in the edu-political arena for use by progressive-minded educators who may one day attempt, as the Coalition did, to promote needed educational reform through legislation.

Order No. 77-13,263, 278 pages.

THE "LITTLE SCHOOL OF THE 400" AND ITS IMPACT ON EDUCATION FOR THE SPANISH DOMINANT BILINGUAL CHILDREN OF TEXAS

Quintanilla, Guadalupe Campos, Ed.D.
University of Houston, 1976

The purpose of this study has been to analyze the impact of the "Little School of the 400" on the education of the Spanish-speaking child of Texas. The historical background provided in the study served a threefold purpose:

(1) that of bringing to light the unimportance traditionally attached to Spanish-English bilingual education, (2) that of disclosing some contributions of Mexican American leaders to the educational arena, and (3) that of providing the reader with a frame of reference in which to base conclusions as to the development of this study.

The "Little School of the 400" was created, developed, and implemented by Mexican Americans. Felix Tijerina, the driving force behind the "Little School" recognized the necessity for an educational program to meet the special needs of the non-English speaking group. He acted accordingly and the result was the "Little School of the 400."

The "Little School of the 400" was based on a valid philosophy of education. A valid philosophy of education defines the problem, provides solutions, and has validity for the future. In the "Little School" the problem was defined as the inability of the non-English speaking child to successfully cope with the regular classroom curriculum. The "Little School of the 400" emerged in an attempt to provide the solution for the problem. The purpose of the "Little School" was to teach Spanish speaking children four hundred basic words in English and to prepare them to better cope with the first grade curriculum of the public schools. In addition, many of the premises advocated in the "Little School" are relevant to contemporary educational needs.

The pioneer instructional program was based on three basic innovational premises: (1) the usage of the mother tongue, (2) the parent component, and (3) the cultural component. Besides using the mother tongue as a bridge for teaching the new language to the child, the parent and cultural components were also advocated. Parents, relatives, and friends were to be encouraged by the teacher to participate in the teaching-learning process. Furthermore, the cultural heritage of the child was to be reinforced and utilized by the teacher to help the development of self-confidence in the child. As teaching techniques, the teachers of the "Little School" utilized basic ones that allowed the child to manipulate the environment and to learn by doing so.

From the "Little School of the 400" emerged, in 1960, the Preschool Instructional Program for Non-English Speaking Children. The program retained many of the basic premises of the "Little School."

In the span of activity of the preschool program as "Little School of the 400" from 1957 to 1959 and as the Preschool Instructional Program for Non-English Speaking Children from 1960 to 1964 the program served thousands of children and touched as many parents.

In conclusion, the development and implementation of the "Little School of the 400" marked the pages of Texas educational history, for it was the first effort on behalf of the non-English speaking child to acquire the strength of a law and it is also considered that it planted the seeds for other programs to come.

Order No. 77-1523, 177 pages.

THE 1974 BILINGUAL EDUCATION AMENDMENTS: REVOLUTION, REACTION OR REFORM

Schneider, Susan Gilbert, Ph.D.
University of Maryland, 1976

Supervisor: Dr. Janet R. Baird

PURPOSE

The study examined in detail the legislative history of the 1974 Bilingual Education Act, Section 105 of the Education Amendments of 1974, Public Law 93-380. The study examined the roles of Representatives, Senators, lobbyists, judicial decisions, minority groups and Administration officials in developing the 1974 Bilingual Education Act.

RESEARCH QUESTIONS

A series of research questions were explored: How did the 1974 Act define the appropriate Federal role in meeting the needs of linguistic minorities? Did the 1974 Act commit the Federal government to provide direct bilingual-bicultural educational services or did it limit the Federal role to secondary support? Did the 1974 Act continue the transitional approach of the 1967 Bilingual Education Act or did it also permit maintenance models? What future direction did the 1974 Act chart for bilingual-bicultural education? Was the 1974 Act revolutionary, reactionary or reformist?

PROCEDURE

The researcher examined literature in the field of bilingual-bicultural education legislation. Congressional and administration documents were analyzed in this case study. Interviews were conducted with Representatives and Senators, Congressional staff, Administration officials, lobbyists and educators involved in the legislative process. Material also included personal files permitting an understanding of the diverse strategies affecting the legislative process.

The document was organized as follows: Chapter One: Introduction Chapter Two: Review of Literature Chapter Three: History and Legislative Background of Bilingual-Bicultural Education Chapter Four: Development of the Senate Position Chapter Five: Development of the House Position Chapter Six: Development of the Administration Position and its Affect on

the Legislative Process in the Senate and House Chapter Seven: The Conference and Passage Chapter Eight: Summary, Analysis and Implications of the 1974 Bilingual Education Amendments Selected Bibliography Appendices A—P.

RESEARCH FINDINGS

Senators and Congressmen with large numbers of limited English-speaking constituents echoed their constituents' support for bilingual-bicultural education. Congressional staff responsibility encompassed all aspects of the legislative process. Congressional courtesy and the personal relationships of legislators with their colleagues had a major impact on the legislative process, promoting the integration of different views of the Federal role in bilingual-bicultural education. House and Senate Committees responsible for education legislation were more liberal than the House or Senate as a whole, therefore, more receptive to equal educational opportunity and to active Federal support of bilingual-bicultural programs.

The division of a Republican President and a Democratic Congress significantly affected the final legislation. The Administration itself was divided over the value of bilingual-bicultural education and the appropriate Federal role.

The Supreme Court decision of *Lau v. Nichols*, while merely supporting the Senate determination to produce an expansion of bilingual-bicultural education, substantially influenced the House and Administration positions. Public opinion had minimal influence on the legislative outcome.

Federal support for bilingual-bicultural education related to Congressional acceptance of the goal of equal educational opportunity. Federal support for bilingual-bicultural education also rested in part on its similarity to Federal compensatory education programs.

Neither revolutionary nor reactionary, the 1974 Bilingual Education Act represented a reform of existing law and practice in bilingual-bicultural education. It emphasized the bilingual-bicultural aspects of Federal programs, authorized funds for personnel preparation and for the curricula development, and extended the bilingual-bicultural approach to adult and vocational education. The law also gave greater priority to the bilingual program within the Office of Education.

Order No. 77-13,048, 519 pages.

DEVELOPMENT

PREDICTED EDUCATIONAL ACHIEVEMENT MANAGEMENT MODEL FOR BILINGUAL BICULTURAL EDUCATION USING A GOAL SYNTHESIS PROCESS

Gilbert Thomas Martinez, Ed.D.
University of Southern California, 1972

Chairman: Professor Dawson

PURPOSE AND PROBLEM

School districts in California which have bilingual-bicultural programs funded through the U.S. Office of Education vary greatly in curriculum and management of their programs. All this divergence means that summative evaluations cannot be equated, so there is no recognized "best fit" for these programs. Therefore, this dissertation was designed to identify, synthesize, analyze, and rank goal statements from 44 Title VII bilingual-bicultural projects, and to design a management model that could be used to implement those goals and matching objectives. The major source of data was responses to a questionnaire consisting of 37 goal statements that were synthesized from 379 original goal statements written in the 44 Title VII bilingual-bicultural projects in California. These questionnaires were sent to 44 Title VII project directors, and to 1,200 parents in various school districts in California. (The goal statements were placed in four categories: learner-instruction, staff development, community involvement, and curriculum development.) Another source of data was research conducted in system analysis and management research in the fields of education and business.

FINDINGS

The following are representative findings of the study: The five most important goals in rank order were numbered 3, 36, 8, 5, and 37 on the questionnaire. These goals, in rank order, were: (3) To assure that in all curriculum areas students will gain the knowledge and skills necessary for success in school and society. (36) To stimulate interest in bilingual education by directly involving members of the community in the instructional program. (8) To produce an educational program which will serve the English speaker and the second language speaker equally well. (5) To develop in all students whose dominant

language is other than English, full bilingual fluency. (37) To raise the aspirational levels which parents have for their children by showing the parents their children are capable of scholastic success. The findings suggest a need for a model or system of curriculum-program development, using both parents and educators to plan and manage the new program.

RECOMMENDATIONS

It is recommended that (1) the first, second, and third ranked goals of this study be used for the present and any future bilingual-bicultural programs in California; (2) curriculum planning be designed and implemented by bilingual-bicultural personnel, organized by the "Predicted Educational Management Achievement Model for Bilingual Bicultural Education"; (3) objectives of bilingual-bicultural education center around three components: mastery, skill, and literacy of two languages, one of which must be English, at least the fifth-grade level of competency; satisfactory learning in all subjects with bilingual literacy in each; personal and social development adjunct with learning styles acceptable to the family and the school; students with different ethnic backgrounds be integrated into bilingual-bicultural programs; (5) community bilingual-bicultural teacher assistants reinforce the learning environment, becoming part of the teaching team; (6) the systematic identification and ranking of discrepancies between what is and what should be, be implemented by school districts using the management model as a system for achieving predicted successes; (7) the development of an entire curriculum based upon the culture of the students be immediately implemented; and (8) new strategies in preparing teachers to teach in a bilingual-bicultural setting be implemented immediately by second language training, much more training and experience in socioculture education, training in anthropology and psychology, retraining of teachers in the field, and reshaping class biases to include the positive aspects of all social classes.

Order No. 72-21,685, 214 pages.

INDIVIDUAL ROLE IN EDUCATIONAL CHANGE AND A FRAMEWORK FOR ITS ANALYSIS, WITH PARTICULAR REFERENCE TO THE ESTABLISHMENT OF A BILINGUAL SUBSCHOOL IN AN URBAN SCHOOL SYSTEM

Michael Daniel McColgan, Ed.D.
Columbia University, 1972

Sponsor: Professor Edward J. Cervenka

The bulk of this 500-page study is comprised of data collected from a two-year period beginning with the establishment of a bilingual program in a public junior high school in New York City, and ending with the predetermined departure of the program manager. Among the data are communications from within the bilingual program and the school, anecdotes, interviews, questionnaires, and other relevant documents that capture the life of an innovative subsystem as it becomes integrated into an organization.

The focus of the study is the role played by the program manager, who happened to have been the author, who was called in as a type of change agent to set up the program. The author had been searching for such a position, and saw his chief role—termed in the study a “supra-role” to distinguish it from his official organizational role of program coordinator—as that of an “interventionist,” which he describes as a “self-implementing” change agent.

The type of individual intervention employed in this study is compared to other strategies of general organizational intervention, such as organization development, the use of consultants and change agents by top management, and other re-educative and data-based strategies; and it is placed in the context of strategies of school intervention, such as those by teacher-writers, militant scholars, parent activists, and ethnic group leaders.

The method of study was primarily participant observation, with the major innovation/deviation that the observer was the major participant rather than the filler of a minor role. Interviews, anecdotes, and questionnaires aided in the observation and analysis.

Explicit hypotheses were not formulated, and the data was approached in terms of grounded theory. The data is presented in a comprehensive and ordered “deposit” rather than selectively anecdoted, in order to promote objectivity and to partially offset the disadvantages of the combined observer-referent role.

The data has been analyzed in terms of role theory, against the background of the interpolation of a new subsystem into an extant organization—in this case the framework was the integration of a bilingual subschool into a public

school. The role of the head of the unit was analyzed chiefly around the concepts of role description, prescription, sanctioning, and dissensus (i.e., non-polarized conflict).

The intervention is ultimately placed in the sphere of planned change in education, and bilingual education specifically.

Order No. 72-28,712, 521 pages.

THE DEVELOPMENT OF A BILINGUAL PROGRAM FOR SPANISH-SPEAKING ELEMENTARY SCHOOL CHILDREN IN LYNN, MASSACHUSETTS

James Thomas Leonard, Jr., Ed.D.
University of Massachusetts, 1973

Director: Dr. Ray Budde

STATEMENT OF THE PROJECT

With the enactment of the nation's first compulsory Transitional Bilingual Education Law by the Massachusetts Board of Education, the writer was assigned by the Superintendent of the Lynn Public Schools to develop a bilingual program for the system's Spanish-speaking elementary school children.

This report documents the experiences of a public school administrator in the following areas: organizing a Parent Advisory Council, expanding non-verbal school activities, improving home-school relations, translating pertinent school forms, and, most importantly, effecting a positive change in community and staff awareness of the philosophy and objectives of transitional bilingual education.

The provisions of Chapter 71A of the Massachusetts General Laws and the regulations issued by the Massachusetts Department of Education were used as the basic guidelines for the implementation of this project.

INSTRUCTIONAL PROCEDURES

The chronological ages of the forty-seven Spanish-speaking students involved in this project from September, 1972 to April, 1973, ranged from five to thirteen years of age.

For the duration of this project the children were instructed in their primary language for two-thirds of the school day. This required the organizing of a

rotating classroom schedule which allowed the children to profit more fully from the unique abilities of each of the three members of the elementary bilingual faculty.

The program that was developed as a result of this project placed an emphasis on a classroom atmosphere that was psychologically safe. Involved school personnel furnished the resources which assisted the child to gradually develop those skills that made the acquiring of reading, writing, and speaking English a meaningful educational experience.

The children in this project received a full-time program of instruction which included all of those subjects that are required of English-speaking students as well as the reading, writing, history, and culture of their native land.

The instructional program which evolved was based on the premise that the individual child has dignity and rights which must be respected. The method of instruction placed a priority on the unique interests and capacities of each child.

A modified non-graded open class methodology was adopted which provided a flexible plan for grouping. It offered a program of continuous learning in both the child's primary language and in English.

METHOD FOR EVALUATING THE PROJECT

A review of the standardized instruments available resulted in the writer's observation that it would be extremely difficult, if not impossible, to evaluate the intended project outcomes objectively. The empirical evidence that has been gathered to date is quantitatively minimal and tends to emphasize the need for the development of instruments that are sensitive to the problems of the population to be served.

It was determined that the most appropriate method of evaluating the total effectiveness of the project would be a series of informal interviews, questionnaires, as well as direct "feedback" from pupils, parents, teachers, and other members of the supportive instructional staff. To facilitate this process, teacher workshops, curriculum study committees, parent-teacher conferences, a series of open houses, and improved home-school communications were designed to accomplish this end.

PROJECT OUTCOMES

The project evaluation indicated that parents and students alike felt that their exposure to this initial bilingual educational experience had been a positive one.

Flexible lines of communication have been established and an active Parent Advisory Council has been organized.

An on-going curriculum committee has been formed to review available

materials and recommend their incorporation into the system's expanding bilingual program.

The project also accentuated the need for the continued efforts of the State Department of Education and local communities to work cooperatively in modifying and expanding existing bilingual regulations.

The project developed an organizational framework which can be applied to other areas in which the need for programs in transitional bilingual education are identified.

It is hoped that this document will serve as a valuable resource to those administrators and supervisors who are presently planning or revising programs for elementary school children of limited English-speaking ability.

Order No. 73-31,108, 239 pages.

THE ROLE OF THE PRINCIPAL WHO SUPERVISES A BILINGUAL EDUCATION PROGRAM WITHIN HIS SCHOOL IN REGARD TO PLANNING, PROGRAM OPERATIONS, IN-SERVICE TRAINING, COMMUNITY DEVELOPMENT AND EVALUATION

Garcia, Tony, Jr., Ed.D.
University of Houston, 1974

Chairman: Dr. Steward D. North

THE PROBLEM

The principal who supervises a Title VII Bilingual Education Program has a difficult administrative role. Bilingual teachers are paid a salary which comes from a Title VII federal grant. The Title VII proposal has a director who becomes responsible for the bilingual education program implemented in the school district and a portion of the supervision of the teachers teaching in the program. Yet, bilingual teachers are housed in a school which is supervised by a principal paid for by the local budget.

Personnel conflicts arise when the bilingual teacher has to respond to the principal as her immediate supervisor under the district's chain of command and also to the Title VII education director. A set of priorities in regard to in-service training, evaluation, materials development, curriculum development, and community meetings necessitate that the bilingual teacher be involved.

More specifically, the conflicts intensify when priorities are weighted in favor of the Title VII program guidelines and timetables. Favoritism irritates the principal who also has priorities for his teachers to meet. Principals very rarely have been involved in the planning aspects of any new Title VII program that has come into the local districts. Principals rarely have been involved in in-service training sessions or community involvement meetings. Assistance in the evaluation design of Title VII programs by the principals also has been another area of neglect on the part of the Title VII staff.

One purpose of federal funding is that eventually the funded institution will absorb the cost of the pilot project. The pilot project must eventually be integrated into the institution's policies and procedures. Bilingual teachers do have dual roles, and the principals who supervise Title VII programs do not know how to respond to those roles.

STATEMENT OF THE PROBLEM

Examined and defined the administrative role principals should manifest in the planning, program operations, in-service training, community development and evaluation aspects of bilingual education programs.

THE QUESTIONNAIRE

The questionnaire used was designed, developed, and tested for reliability by the researcher. The questionnaire consisted of twenty-nine (29) questions surveying the management system, curriculum, in-service training, evaluation design, and community involvement attitudes of how a principal should be involved in these areas. This survey defined a functional administrative role for principals whose schools house a Title VII program.

POPULATION

The questionnaire was administered through the mail to four segments of the population. The population consisted of people involved in Title VII bilingual education programs. The survey was nation-wide. The four segments were: (a) Principals whose schools housed a Title VII program, (b) USOE consultants, (c) Title VII directors, (d) Bilingual teachers. Two hundred-fourteen Title VII projects in the nation were surveyed.

RESEARCH PROCEDURES

Each project received a packet which contained four questionnaires with four stamped self-addressed envelopes. The project director of each bilingual

program gave each designated person of the population his questionnaire to answer. There were 672 respondents in the study. The data gathering was divided into four sub-groups. Each sub-group corresponded to each segment of the total population.

A mailing list of 214 bilingual projects in the United States (including Alaska, Hawaii, Guam, and Puerto Rico) was obtained from the chief of the Bilingual Programs Branch, U. S. Office of Education, Department of Health, Education and Welfare. One hundred sixty-eight of 214 bilingual projects were chosen because forty-six of the projects had just begun their first year of operation. A copy of the mailing list of projects and of the four samples of the population are in Appendix C of this dissertation.

TREATMENT OF THE DATA

The data gathered were compiled, tabulated, and coded. The responses were key-punched and fed into a computer. A Chi-Square Analysis Program determined or defined an administrative role for the Principal whose school housed a Title VII program. The true/false responses were tabulated and the total number of responses were taken from each category for each segment of the population. There was a specific administrative role for the Principal Whose School Houses a Title VII Bilingual Education Program in regard to the areas of Planning, Program Operations, In-Service Training, Community Development, and Evaluation. The specific role of the principal who supervises a bilingual education program in regard to planning, program operations, in-service training, and evaluation may be found in Chapter V of the dissertation.

Order No. 75-1014, 152 pages.

PERCEPTIONS AND EXPECTATIONS OF BILINGUAL-BICULTURAL EDUCATIONAL PROGRAM DIRECTORS, THEIR STAFF AND SUPERORDINATES REGARDING LEADER BEHAVIOR OF DIRECTORS OF BILINGUAL-BICULTURAL PROGRAMS

Lopez, Thomas Francisco, Ed.D.
Wayne State University, 1974

Adviser: Lynn Nicholas

The purpose of this study was to collect empirical evidence relevant to the contention that there is a significant relationship between the leadership behavior of the director of bilingual-bicultural education and his staff and superordinate's perception of how he behaves as a leader. Also, that there is a corresponding relationship between the director's own beliefs and those of his staff and superordinate concerning how he should behave. The study sought to test hypotheses related to leadership behavior.

Two dimensions (Consideration and Initiating Structure) of the director's actual and ideal behavior were measured by the Leader Behavior Description Questionnaire. One hundred and fifty-four teachers, twelve directors and their twelve superordinates answered the questionnaires.

PERTINENT FINDINGS

- Hypothesis 1. Director (R)—Superordinate (R) on
Consideration. No significant
difference
Director (R)—Superordinate (R) on
Initiating Structure. . . .Significantly
different
2. Director (R)—Staff (R) Consideration and
Initiating Structure. . . .Significantly
different
3. Director (I)—Superordinate (I) on
Consideration and Initiating Structure. . .
No significant difference
4. Director (I)—Superordinate (I) on
Consideration and Initiating Structure. . .
No significant difference
5. Director (R)—Superordinate (I) on
Consideration. No significant
difference
Director (R)—Superordinate (I) on
Initiating Structure. Significantly
different
6. Director (R)—Staff (I) on Consideration. . .
No significant difference
Director (R)—Staff (I) on Initiating
Structure. Significantly
different

7. Director (R)—Staff (R) Consideration and Initiating Structure. No significant difference
8. Director (I)—Superordinate (I) on Consideration and Initiating Structure. No significant difference

OTHER FINDINGS

1. Rural (R)—Urban (R) on Consideration. Significantly different
2. Rural (I)—Urban (I) on Consideration and Initiating Structure. No significant difference

CONCLUSIONS

A general conclusion drawn from the study is that there seems to be conflict between the "Chicano" and the "Anglo" value system regarding leader behavior. Effective leaders in previous studies have been identified as those with high consideration and high initiating structure. The traditional value system of the Chicano, which is usually centered more on consideration rather than initiating structure tends to have an influence in this study.

The recognition of bilingual-bicultural education as a viable educational approach gives vitality to the pluralistic nature of our society and recognizes the value of people of different linguistic and cultural background in our society. This trend towards an acceptance of bilingual-bicultural education seems to indicate an awareness of worth and dignity of each and every individual in our society. This recognition can begin to provide the opportunity for each individual to develop to their fullest potential and become better citizens and contributors to this great pluralistic society.

Order No. 75-13,357, 137 pages.

DEVELOPMENT OF GUIDELINES FOR CONDUCTING RESEARCH IN BILINGUAL EDUCATION

Streiff, Paul Robert, Ed.D.
University of California, Los Angeles, 1974

Chairman: Professor Wilbur H. Dutton

This study investigated a problem involving federal funding of innovative programs under the Bilingual Education Act (Title VII of the Elementary and Secondary Education Act). More specifically, an elaborate system for evaluation of Bilingual Education projects, built into the Guidelines for implementation, was not able to establish the value accrued to learners from dual language instruction.

The theoretical framework for the study was that of organizational theory. In recent years the Federal Government has emerged as a major change agent through the funding of innovative educational programs mandated by Congress, and the methods of social research, participant observation and descriptive research, were employed to conduct the study. Primary documents in the enactment of Title VII were gathered and analyzed in order to identify the innovative strategy selected by the U.S. Office of Education for its implementation.

Another purpose of the study was to develop a set of revised guidelines for implementation of Title VII which would represent greater potential for bringing about truly new and imaginative programs as specified in the Congressional mandate.

Review of literature on social change through educational innovation uncovered an innovative strategy called the "alternative of grandeur." This strategy is characterized by efforts to effect pervasive change. A multiplicity of elements are simultaneous targets for change, and a number of temporary systems are installed to facilitate innovation. Employment of the strategy often results in high levels of uncertainty and confusion about goals, approaches, and methods.

Analysis of the Guidelines for Bilingual Education identified the innovative strategy as that of the alternative of grandeur. Revised guidelines, representing a more potentially productive strategy called the "alternative of gradualism" were formulated and recommendations were made for next steps in assessing the possibility of their acceptance.

Order No. 75-5707, 198 pages.

A PARADIGM FOR THE IMPLEMENTATION OF ACCOUNTABILITY MEASURES IN BILINGUAL EDUCATION

Troy, Bernard Allan, Ph.D.
University of Southern California, 1974

Chairman: Professor Newton S. Metfessel

PURPOSE

The intent of the study was to develop a model that would aid community members, parents, teachers, and administrators to implement measures to increase accountability in Bilingual Education Programs. Concern was directed principally toward programs for Mexican-American children in California.

PROCEDURES

A survey of the literature was undertaken, with special attention given to the areas of accountability, program evaluation, systems approaches to program implementation and evaluation, and evaluation of bilingual education programs. The paradigm was developed as a synthesis of the literature. An attempt was made to contact all the persons designated as evaluators of Title VII Bilingual Education Programs in California. They were asked to react critically to the paradigm. Then revisions of the paradigm were undertaken in response to their observations.

ACCOUNTABILITY DEFINED

Accountability is defined broadly, in this study, as responsiveness to the needs and desires of the community and as effective and efficient realization of objectives. It is asserted that the systems approach to program implementation and evaluation is the best way to achieve these goals.

THE PARADIGM

The paradigm is composed of five stages, each with several steps involved. The stages are: (1) the Involvement Stage; (2) the Commitment Stage; (3) the Implementation Stage; (4) the Summative Evaluation Stage; and (5) the Accounting Stage. Stages (2), (3), and (4) are components of any systems approach. Stage (1), Involvement, is emphasized because of complaints that members

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of the Mexican-American community do not have adequate voice concerning their education. Stage (5), Accounting, suggests clear, objective reporting to all the members of the community on the achievements of the program.

REACTION OF EVALUATORS

In general, respondents were favorable to the paradigm. A number of them made observations regarding specific aspects of the paradigm. An attempt was made to integrate their views into the suggestions for revisions.

RECOMMENDATIONS

It is suggested that further work in the area be directed toward: (1) development of criterion-referenced measures for bilingual education; and (2) development or refinement of measures that take into account the social or political climate of the community as well as those that are concerned with academic achievement.

Order No. 74-21,513, 232 pages.

A COMPARATIVE ANALYSIS OF EVALUATIVE THEORY AND PRACTICE FOR THE INSTRUCTIONAL COMPONENT OF BILINGUAL PROGRAMS

Medina, Amelia Cirilo, Ph.D.
Texas A&M University, 1975

Chairman: Dr. Robert E. Shutes

This study, conducted over a period of three years, sought to compare general evaluation theory, bilingual education evaluation theory, federal regulations and guidelines for the evaluation of bilingual programs and a local educational audit to determine if there were significant differences among theory, requirements, and practice.

A comparative analysis was used to determine the degree of appropriateness of general theory of evaluation to bilingual program evaluation. A comprehensive theoretical model which could provide a set of criteria against which an actual evaluation could be analyzed was identified.

The initial step involved a literature review. The CIPP Model of Evaluation constructed by the Phi Delta Kappa National Study Committee on Evaluation was identified as an appropriate model. The four components of the CIPP

Model (Context, Input, Process, and Product) were adopted as the skeleton for a comprehensive model. It was elaborated by using Howard Merriman's eight operational phases within components. It was further expanded from recommendations of the PDK Study Committee.

The next step was to expand the model to apply specifically to bilingual programs. After review of literature of bilingual evaluation theory, the model was given greater specificity by adding new dimensions. Federal guidelines and requirements were then used to expand entries even further. The composite model was used as the comparative base for the local evaluation audit selected. The program selected was one located in Texas which was representative in size and context of other federally funded bilingual programs.

Activities found in all areas of investigation were tabulated in composite tables. Analyses of tabulations within each area were used to find discrepancies among general theory, bilingual education theory, federal guidelines and a local educational audit.

Findings of this study were that general evaluation has identified major steps and phases for any evaluation, but it cannot specify particular dimensions needed by specific programs. When dimensions of a specific kind of program are added, details can grow beyond the capabilities of a local education agency. Federal requirements and guidelines further stretch the local agency's capacity. One can assume that to apply all desirable evaluation activities would exceed the bounds of realism. The representative bilingual program chosen did not meet all the requirements identified by General Theory, Bilingual Education Evaluation Theory, or the Federal Requirements and Guidelines. Some omissions, such as organization and data collection are serious; others reflect the limits of realism because of extensive requirements and lack of appropriate materials and instruments.

The following recommendations are made in the study: (1) The composite model formulated should be analyzed to determine ways to simplify it. (2) Separate studies should be made in Context, Input, Process and Product components. (3) Case studies of the actual process of bilingual program evaluation at several sites should be made in order to gather data on difficult and unnecessary areas, and the reasons surrounding them. This should result in recommendations for changes, procedure, training, and other necessary components. (4) Several bilingual programs should be compared using the composite model formulated in this study as a reference framework. (5) Review of available instruments for bilingual programs should be conducted to determine those with greatest validity, reliability, and applicability. (6) Roles of bilingual program evaluators should be studied. (7) A study of ways to standardize and simplify data manipulation in federally funded programs should be undertaken to increase comparability.

Order No. 76-3656, 283 pages.

A DESCRIPTIVE STUDY OF THE SUPERVISION OF BILINGUAL PROGRAMS FOR SPANISH SPEAKING STUDENTS DURING THE FIRST YEAR OF IMPLEMENTATION OF CHAPTER 71 A, TRANSITIONAL BILINGUAL EDUCATION ACT OF MASSACHUSETTS

Rodriguez Munguia, Juan C., Ed.D.
University of Massachusetts, 1975

This study describes the supervision at the state level of the implementing of Chapter 71 A, during the first year of its operation, school year of 1972-1973 in the public schools of Massachusetts. This Transitional Bilingual Education Act was the nation's first such mandatory law.

The mandates of Chapter 71 A and Regulations as well as the documents of the Bureau of Transitional Bilingual Education are of particular significance in this study.

In addition, this study assesses the opinions of parents of Spanish-speaking children participating in transitional (bilingual) education programs regarding the implementation of Chapter 71 A and parental involvement. For this purpose a questionnaire was developed and administered by the writer.

The purpose, design and significance of this study are presented in Chapter one. Review of the literature pertaining to bilingual education, educational supervision and parental involvement are presented in chapter two. The social and educational status of the Spanish-speaking people in U.S.A. and in Massachusetts is presented in chapter three.

The description of the supervisory activities related to the program's objectives of the TBE Bureau are presented in chapter four. The parents' opinions regarding bilingual education and parental involvement are explored in chapter five.

Chapter six contains the summary, conclusions, and recommendations based on the findings of this study and the writer's experience.

The writer is a state supervisor in the Bureau of Transitional Bilingual Education which has the responsibility for the implementation of Chapter 71 A, Transitional Bilingual Education Act.

Order No: 75-16,596, 194 pages.

COST ANALYSIS OF BILINGUAL, SPECIAL, AND VOCATIONAL PUBLIC SCHOOL PROGRAMS IN NEW MEXICO

Garcia, Joseph Odocio, Ph.D.
The University of New Mexico, 1976

STATEMENT OF THE PROBLEM

The 1974 New Mexico State Legislature enacted House Bill 85 which consisted of a distribution plan to allocate state monies for education on a cost index basis. This distribution plan recognized the fact that different types of education require different expenditures. Distributional as well as taxpayer equity are characteristic of this formula, two features lacking in previous formulas.

The state equalization guarantee formula has been in operation for one fiscal year; hence, it becomes essential to evaluate it in terms of its distributional relationship to actual expenditures in the school districts. One of the primary objectives of this study was to compare the program cost indices developed in this study to the program cost indices established in New Mexico law for the purpose of determining the accuracy of those legal indices.

PROCEDURES

In the process of establishing empirical evidence for the refinement of the equalization guarantee formula, it became essential that new and accurate data be collected and analyzed. The data elements to be used in determining program expenditures for Bilingual, Special, and Vocational Education Programs in New Mexico school districts were identified from the following sources: 1) literature review of the National Educational Finance Project sponsored public school finance studies; 2) official documents located in the Office of the Public School Finance Division of New Mexico; and 3) consultation with staff of the Legislative School Study Committee and the Legislative Finance Committee. The data elements required for this study consisted of pupil accounting, staffing allocations and salaries, and expenditures by educational program.

Two comprehensive data collection instruments with 326 items were developed and pilot tested to gather the required data. One instrument collected data available at the Public School Finance Division, and the other instrument collected data from all 88 school districts. In order to identify actual expenditures by educational program while simultaneously reflecting the varied costs incurred in providing the programs, it was deemed essential that

no sampling technique be employed and that the required data be gathered from all 88 school districts.

Worksheets were developed to calculate per pupil expenditures, cost differentials, and cost indices for the regular education program (grades 4-6), Bilingual, Special, and Vocational Education Programs.

RESULTS AND CONCLUSIONS

The actual expenditures as reflected by the cost indices of the present study for the two add-on educational programs, Bilingual and Vocational Education, and Special Education Class D programs proved to be lower when compared to the cost indices stipulated in law. Cost indices of this study for Special Education Class B and Class C programs proved to be higher when compared to the cost indices of the New Mexico equalization guarantee formula. Only the Class C Special Education program was not statistically different at the level (.05) established for this study.

The 1976 New Mexico State Legislature utilized the results of this study to refine the equalization guarantee formula so that educational programs can be funded as accurately as possible to reflect actual expenditures.

Order No. 77-6559, 227 pages.

A SURVEY OF FIFTY-FIVE ESEA TITLE VII BILINGUAL EDUCATION PROJECTS IN THE STATE OF CALIFORNIA

James, Davis Leander, Ed.D.
University of Southern California, 1976

Chairman: Professor Smart

PURPOSE

The major purpose of this survey was to obtain information concerning similarities and differences among the 55 bilingual programs in California funded through Title VII, in the following seven areas of interest: (1) planning and writing problems; (2) organization procedures used in implementation; (3) materials and media used and developed; (4) common community reactions to programs; (5) common reactions by certificated staffs; (6) types of evaluation instruments developed or used; (7) methods of inter- and intra-project communication used.

PROCEDURE

A closed form questionnaire of 24 questions was mailed to Directors and Staffs of the California bilingual education projects. Thirty-six responses (65%) were returned. Reported data: (1) a citation of the question pertaining to each category and the data relevant to it; (2) an overall summary of responses. Frequencies of responses and corresponding percentages showed findings.

FINDINGS

Findings reported: (1) District Directors and Staffs found federal guidelines difficult to follow in planning and writing Title VII proposal; (2) evidence of varying allocation of time in curricular areas showed little spent in language and bilingual teaching; (3) seventeen districts reported bilingual instructional materials used in language, reading and multicultural subjects; (4) the majority of feedback from parents and community was positive to programs; (5) thirty districts indicated 50 to 100 percent of certificated staffs achieving project objectives at a satisfactory to high performance level; (6) data indicate that criterion referenced tests are used as evaluation instruments; (7) six responding districts indicated multiple ways of communicating with other districts; frequently reported ways were: (a) conference, (b) individual visits, (c) phone calls; (8) very high numbers of students to bilingual teachers were found. This latter finding, though not a part of this study, appeared important.

CONCLUSIONS

From the findings the following conclusions were drawn: (1) federal guidelines are difficult to follow; (2) time given to language and bilingual teaching has been minimal; (3) a lack of uniformity in the use of bilingual instructional materials was apparent throughout the programs; (4) feedback from communities was mostly positive; (5) there was a suggestion of some possible lack of strict compliance with federal guidelines; (6) the staff members of nearly all districts appeared to be meeting program objectives; (7) the majority of districts were not funded to develop evaluation instruments; (8) most districts have resorted to the use of standardized and criterion referenced tests; (9) little if any means of formal communication among districts bilingual programs existed; (10) unusually high ratios of the number of students to bilingual teachers were evident.

RECOMMENDATIONS

In the light of the findings and conclusions the following recommendations are made: (1) federal guidelines should be kept to a minimum and written in

easily understood language; (2) there should be federal and/or state funds allocated to meet the additional costs for developing curriculum materials in reading and language, and for preparing formative evaluation criterion referenced instruments relevant to program objectives; (3) there should be compliance with federal guidelines in the composition and function of district advisory committees; (4) provisions should be made to recruit and prepare bilingual teachers to meet the unique needs of students in bilingual programs; (5) there should be a communication network established to ensure both inter- and intra-project communication among and between bilingual bicultural programs in California and the nation.

A STUDY OF FACTORS WHICH AFFECT THE DECISION- MAKING PROCESS IN BILINGUAL/BICULTURAL EDUCA- TION: A PROPOSED THEORETICAL FRAMEWORK

Pena, Sylvia C., Ed.D.
University of Houston, 1976

PURPOSE OF THE STUDY

The purpose of this study was (1) to define those constructs from the body of literature on curriculum which guide the curriculum development process, (2) to define those factors in bilingual education which affect the decision-making process, and (3) to define those factors with regard to the languages in the program which also affect the decision-making process, and (4) to suggest a theoretical framework for the development of bilingual programs at the local level which accomodate the above factors.

SCOPE OF THE STUDY

The major focus of this study was on the development of a theoretical framework for bilingual programs from a curriculum development perspective at the local school district level. Although the planning, management, and evaluation phases as indiscreet tasks are considered crucial to the eventual success of the curriculum development process, these activities were not within the scope of this study. As such, they were touched upon in a peripheral manner and only within the context of the development task. The referents for this study were limited to the Mexican American learner participating in bilingual education programs and therefore to Spanish and English as the languages in the program.

PROPOSED FRAMEWORK

The philosophical considerations in curriculum development within the context of bilingual education assume a primary role. The overriding factors which affect the nature and scope of bilingual programs can be summarized as being the learner, society, knowledge, and driving and restraining forces. A universe of values can be said to determine the relative weight of importance placed upon each of the foregoing factors. Consequently, a philosophy of education as dependent variable (P) will reflect the value placed on the independent variables, i.e., the learner (V), the society (W), knowledge (X), and driving (Y) and restraining (Z) forces. The coefficients "a," "b," "c," "d," and "e" represent the relative value placed on each independent variable. Thus, $aV + bW + cX + dY + eZ = P$.

The theoretical dimension of the program can be illustrated in the same manner. For example, the degree of bilingualism as the goal or the dependent variable of the program is affected by the relative importance placed on the independent variables, in this case the language development aspects and the driving and restraining forces. This relationship is summarized as follows: (1) the relative value placed on Spanish as a medium of instruction (variable O), (2) the relative value placed on Spanish as a subject, i.e., as a second language (variable P), (3) the relative value placed on English as a medium of instruction (variable Q), (4) the relative value placed on English as a subject, i.e., as a second language (variable R), (5) the relative value placed on driving forces (variable S), and (6) the relative value placed on restraining forces (variable T). By using the letters "a," "b," "c," "d," "e," and "f" as the coefficients to represent the relative value of each independent variable and the letter "G" to stand for the dependent variable, the relationship can be further illustrated as follows: $aO + bP + cQ + dR + eS + fT = G$. Examples of driving or restraining forces can be the philosophy of the program, quality of the teaching, and/or the availability of human and physical resources.

As a result of the decisions made at the above two levels, bilingual education programs can be of a specific nature. The approach or the model is easily reflected in the role assumed by the two languages. To illustrate the possibilities, the kindergarten to twelfth grades can be represented as falling on a continuum where A represents kindergarten, B represents the twelfth grade, and X represents any grade from A to B.



Thus, Spanish can be used as the medium of instruction from A to X, or from X to B. English can be used as the medium of instruction from A to X, or from X to B. The second language, either, English or Spanish (or both) can be taught as a second language from A to X, or from X to B.

RECOMMENDATIONS

In order to make bilingual programs more viable educational alternatives for any participant, it is recommended that program developers take into account the factors explained above. The suggested framework can assist in conceptualizing and implementing a program which will reflect the particular context. The interrelationships between the philosophical, theoretical, and technical aspects have been discussed. While this theoretical framework is merely presented as a beginning analysis of the problem, it can serve to further clarify and suggest other possible dimensions to the problem of planning and implementing a program. Further research is needed in each of the philosophical, theoretical, and technological aspects of the program in order that the complex nature of the different variables be better understood.

Order No. 77-1522, 197 pages.

A DESCRIPTIVE STUDY OF THE IMPLEMENTATION OF FIVE COMPONENT ELEMENTS OF RANDOMLY SELECTED TITLE VII BILINGUAL/BICULTURAL PROGRAMS

Steward, F.S.C., Peter John, Ph.D.
University of Maryland, 1976

Supervisor: Dr. William DeLorenzo

The passage of the Bilingual Education Act in 1968 was the result of an awareness among American educators and government legislators that there was a need to provide specialized education programs for a substantial minority population in the nation's school systems. This need was substantiated by educational research on minority group education and by investigations of Federal commissions into the status of educational opportunities afforded minority group students whose mother tongue is other than English.

Spanish-speaking students constitute the largest linguistic minority in the American school system; consequently, the vast majority of Title VII programs now in existence have Spanish-speaking students as a target population.

A study of the United States Office of Education's *Manual For Project Applicants and Grantees* (1971), and other sources such as *Resource Manual For Implementing Bilingual Education Programs*, published by the Texas Education Agency, offer some general guidelines in reference to the constitutive elements of bilingual/bicultural education programs. From these guidelines

and from other related literature it becomes possible to identify five such elements: (1) the students, (2) the teachers, (3) the parents, (4) the community-at-large, and (5) the curriculum.

Most Title VII programs have made provisions for implementing specific objectives for each of the stated component elements but there is much variation in the extent of implementation as well as in the techniques employed.

In this study, the writer randomly selected fifteen Title VII bilingual/bicultural education programs whose target population is the Spanish-speaking from a total of seventy-five programs surveyed. In the study, each of the five component elements is considered in turn. For each component, the writer reported the methods of implementation followed by each of the fifteen programs selected.

The writer concluded that, though all Title VII programs purport to be implementing the five component elements of bilingual/bicultural education, there is evident variation in the importance given to each of the elements by the programs studied. Often one program may emphasize one or two elements and not the others. Some programs make efforts to provide substantial implementation of all five components.

A chart indicating the comparative degree of implementation of the five components in the fifteen programs in the study sample is included.

A final discussion of the strategies for the implementation of the five component elements of bilingual/bicultural education as found in the fifteen programs of the study sample is offered with a view to presenting a clear delineation of the meaning of bilingual/bicultural education and of the methods for achieving the goals of such education.

Order No. 76-29,012, 461 pages.

BILINGUAL PROGRAM MODELS

AN EXPERIMENTAL PILOT BILINGUAL MODEL SCHOOL FOR TRANSIENT MEXICAN-AMERICAN STUDENTS

Librado Keno Vásquez, Ph.D.
University of Oregon, 1969

Adviser: Dr. Arthur Pearl

There are more than five million Mexican-Americans in the United States, eighty (80) per cent of whom live in California and Texas. Most of the others

are found in Arizona, Colorado, Ohio, Oregon, New Mexico, Washington, and Illinois. In excess of four million of these people live in urban areas. The Mexican-American is the second largest minority group in the United States. The number increases steadily because Mexican-Americans raise larger families than other ethnic groups. Most are of native Nahuatl stock with the incursion of some European, principally Spanish blood. For several hundred years, their ancestors comprised one of mankind's most advanced civilizations, but, with the adverse political change after the Mexican-American War ended in 1848, they have become a poor and exploited minority within Anglo-American society. Even adequate nutrition is difficult to obtain for those who work hardest, particularly transient-workers, are characterized by some as "lazy" or, more politely, as "lacking in goal orientation." Americans of European origin generally admire the individual who speaks more than one language unless that individual is of Mexican descent.

Bilingualism has been discouraged, sometimes cruelly quashed, in schools of the Southwest, which unfortunate situations have created a great number of people who communicate bilingually and speak neither English nor Spanish very well. This attitude typifies a predominant Anglo-American attitude toward Mexican-Americans that somehow their culture is substandard. The time has long come when culturally different must not mean culturally inferior. Sociological evidence merely support the obvious: If society teaches self pride to its children, self pride is what they will learn; conversely, if they are taught to be ashamed of their race and culture, they will learn to hate themselves. Also, if their language is respected and used, they will learn more from their teachers than if it is disrespected and not used at all. The Experimental Pilot Bilingual Model School for Transient Mexican-American students is open to all transient and stable Mexican-American students (K-12). The method in which these subject-matters have been implemented is bilingual. The main objective of this model school is to reintegrate the transient and stable Mexican-American students into the regular classroom at the earliest possible time. In this dissertation there is an outline that has specific plans for a future experimental pilot bilingual model school for Mexican-Americans and an evaluation of a brief pilot testing program which has compared the achievements of Mexican-Americans in a Southern California Junior High School under monolingual and bilingual teachers, using the Stanford Achievement Test. Although the results of the pilot program reveal some general information about the two groups, it did not establish any statistically significant difference; this fact is most likely explained by the briefness of the five week instructional period.

Order No. 70-15,362 M \$4.00; X \$9.70. 212 pages.

AN EVALUATION OF THE EFFECTIVENESS OF SELECTED EXPERIMENTAL BILINGUAL EDUCATION PROGRAMS IN CONNECTICUT

Perry Alan Zirkel, Ph.D.

The University of Connecticut, 1972

The purpose of this study was to assess the effectiveness of the experimental bilingual programs initiated in 1970-71 in the Connecticut cities of Bridgeport, Hartford, New Britain, and New London with respect to selected pupil and parent outcomes. The selected pupil outcomes were general academic abilities in Spanish and English and self-concept. The selected parent outcomes were involvement, attitudes, and awareness of the school program.

The subjects of the study were economically disadvantaged Puerto Rican pupils in the primary grades in the four cities. Three experimental models of instruction were identified: one *bilingual* in Bridgeport and Hartford and two *quasi-bilingual* in New Britain and New London, respectively. A pre-post control group design, employing analysis of covariance, was used to analyze the effectiveness of each experimental model with respect to the selected pupil outcomes at Levels I (grade 1) and II (grades 2-3). Pre-test and I.Q. were used as control variables to statistically equate the three pairs of experimental and control groups at each level. In order to assess the effectiveness of the *bilingual* model with regard to parent outcomes, appropriate descriptive and inferential statistics were used to summarize and analyze the results of selected items of an end-of-the-year interview that was conducted with a random sample of the parents of the experimental and control groups in Bridgeport and Hartford.

The following instruments were utilized in the study: the Goodenough-Harris Draw-A-Man Test, the Inter-American Test of General Ability, the Inferred Self-Concept Scale, and the Zirkel-Greene Home Interview Schedule.

The analysis of the student outcomes in Bridgeport and Hartford generally favored the *bilingual* model of instruction. The differences between the experimental and control groups were statistically significant with respect to self-concept at Level I and academic abilities in both Spanish and English at Level II, favoring the *bilingual* model in each case. The somewhat differential findings with respect to academic abilities may have been due to differences in teacher qualifications between the two levels. The somewhat differential findings with respect to self-concept may have been attributable to a possible intervening instrument factor and to the differing relationships of the home and school environments.

Analysis of the interview results showed that parents of pupils in the *bilingual* model of instruction were more informed, interested, involved, and in favor of the school program at the end of the school year than were the parents of

the control group children. These differences were definitely significant in one of these four criterion categories and possibly significant in another two in the light of relevant pre-existing differences found between the two parent groups.

Analyses of the *quasi-bilingual* models in New Britain and New London revealed slight and not significant differences between the experimental and control groups in each city with respect to the selected student outcomes. In the New Britain program, where a minor amount of subject matter instruction in the native language was provided by teacher aides, the control group slightly surpassed the experimental group with respect to all three dependent variables, the greatest margin was found for self-concept. These findings were attributed to the secondary status accorded bilingual instruction in terms of time distribution and staffing pattern.

In the New London program, where formal instruction through the native language was limited to "pull-out" periods with bilingual resource teachers, the experimental group generally, but not significantly, surpassed the control group with respect to the three dependent variables at each level. The lack of significantly positive results was attributed to the limited time and articulation of the bilingual pull-out periods and the limited role and resources of the bilingual resource teachers in relation to the regular program. The need for greater commitment and coordination was evident.

Order No. 72-32,267, 175 pages.

A DESCRIPTIVE STUDY OF THE IMPLEMENTATION OF A TRANSITIONAL BILINGUAL PROGRAM FOR SPANISH- SPEAKING JUNIOR HIGH SCHOOL CHILDREN IN SOUTHBRIDGE, MASSACHUSETTS

Cabañas, Clodomiro M., Ed.D.
University of Massachusetts, 1974

Director: Dr. Arthur W. Eve

Since the enactment of the compulsory Massachusetts Transitional Bilingual Education Law, bilingual programs for students with limited English-speaking ability are being implemented throughout the Commonwealth of Massachusetts. This writing deals with the implementation of such a program in the town of Southbridge, Massachusetts. A description of the implementation period including the key people involved and the events leading to the implementation of

the bilingual program are presented. The information obtained from a questionnaire designed by the Bureau of Transitional Bilingual Education and administered to the children in the bilingual program by the investigator is reported and analyzed.

The program was implemented at the junior high school level with an enrollment of twelve Spanish-speaking children. The duration of the program was from March 1973, to June 1973. At the end of the school year, only ten students were participating, their ages ranging from ten to sixteen years. While this class was being conducted, plans were made to include the elementary grades in the bilingual program the following school year.

The children taking part in the program were offered a program of instruction which included the subjects required of English-speaking students as well as the language, history and culture of their land of origin. Instruction was given by a bilingual teacher and an English as a Second Language teacher.

It is difficult to evaluate the effectiveness of the program. It was implemented hastily and it encountered stumbling blocks along the way. One of the teachers resigned early in the program. The English as a Second Language teacher was not appointed until May 1973. Materials and books did not arrive on time. Consequently, parents and some school officials were skeptical about the success of the program.

However, the TBE program in Southbridge did serve as a stepping stone to further involvement by the school system. As the TBE program is expanded, those involved in the experience described herein may be able to avoid some of the frustrations of their earlier effort—and that may be one measure of success.

Order No. 74-25,823, 295 pages.

THE ENGLISH-AS-A-SECOND-LANGUAGE COMPONENT OF SELECTED BILINGUAL PROGRAMS IN A NEW YORK CITY COMMUNITY SCHOOL DISTRICT: A DESCRIPTIVE STUDY

Frankfort, Nancy, Ed.D.
New York University, 1975

Chairman: Professor Harvey Nadler

The purpose of this study was to describe the teaching of English as a second language as it functioned within the bilingual programs of five selected elementary schools in New York City. These programs were among the first to be implemented in New York City under the provisions of the Bilingual Education

Act; they had been in operation for four years; and they were designed for Spanish-speaking children.

Data pertinent to this study were gathered by means of two instruments. A Questionnaire for Teachers was designed to elicit information from the teachers who taught English as a second language in the bilingual programs of the subject schools. This information included the respondent's experience, training, professional affiliations, classroom practices and use of materials. An Observation Schedule was designed as a checklist on which the investigator recorded instances during the English as a second language lessons in which specific techniques, activities, and materials were used. Additional data were obtained by means of informal interviews with school personnel and by examination of documents pertinent to the study. The data were treated in expository and in tabular form. The information that was obtained was analyzed in terms of how it conformed with accepted models, standards, practices, and procedures deemed exemplary by the experts and in the literature on bilingual education and the teaching of English as a second language.

In addition to a comprehensive description of the programs, some of the findings that emerged from the study are:

1. All of the teachers who are teaching English as a second language in these programs are good linguistic models with native or near-native competence in English.
2. All but two of these teachers have knowledge of and varying degrees of ability in Spanish as a second language.
3. No pre-service requirements exist as to the preparation and training of the teacher of ESL other than the possession of a license to teach.
4. Most of the teachers have had at least one course in methods of teaching ESL, but are lacking any extensive training in the discipline. Only one participant was licensed as a teacher of English as a second language. No one had a degree with a major emphasis in this field.
5. The audio-lingual method and the techniques, materials and procedures commonly associated with this method is the preferred choice of all but one of the respondents.
6. Teacher-made materials constitute the major elements of the ESL curriculum, although the teachers are not qualified to prepare such materials.
7. The assessment of a pupil's English language difficulty is based on a subjective rating scale.
8. The evaluation of a pupil's progress in the development of English language skills is based on teacher judgment and the same subjective rating scale.
9. The major emphasis of the ESL program is on reading and not on the development of the aural-oral language skills.
10. Children who need more intensive work in ESL than is provided in the bilingual setting are sent to the assigned teacher of English as a second language for small-group instruction.

Recommendations were made concerning suggested modifications of the ESL components of the bilingual programs in the schools under study. These were in the areas of curriculum and materials, methodology, evaluation, and teacher-training. Additional recommendations were made for guidelines to be

used in the establishment of other such programs. Further recommendations proposed areas of needed research in ESL and bilingual education.

Order No. 76-1775, 223 pages.

BICULTURAL-BILINGUAL EDUCATION FOR LATINO STUDENTS: A CONTINUOUS PROGRESS MODEL

Reyes, Vinicio H., Ph.D.

Loyola University of Chicago, 1975

The two-fold purpose of this study was: to provide a rationale for bilingual education in Chicago based on historical developments and the socio-cultural characteristics of the Spanish-speaking students in Chicago; and to propose a model for a continuous progress, two-way, integrated, maintenance type, total, bicultural-bilingual program that would incorporate up-to-date educational strategies beginning with the Early Childhood Bilingual Readiness Center, and continuing with the same group to the Elementary Bilingual Center, the Bilingual Middle School, and the Bilingual High School.

The first purpose was accomplished by reviewing the literature dealing with the education and learning processes of Spanish-speaking students. Historical, political, and social developments which affected the Mexicans, Puerto Ricans, Cubans, and other Latin Americans and caused them to come to Chicago were presented in order to emphasize the need for bilingual education in Chicago.

To accomplish the second and most significant purpose, the existing Spanish-English bilingual programs in Chicago were carefully studied. The primary data collection technique was a questionnaire. Documentary and interview techniques were used for validity check.

The questionnaire was designed to include items pertaining to basic components of bicultural-bilingual education. In the statistical analysis of the questionnaire data the type of program, maintenance or transitional, was considered as the independent variable. The dependent variables were development of language usage, amount of program time, staff organization, evaluation, way, grouping and culture. The general null hypothesis under this procedure was that the maintenance or transitional programs do not differ in their characteristics regarding the other components. It was found that the type of program chosen, maintenance or transitional, does affect the other basic organizational components. Therefore, the null hypothesis had to be rejected.

Based on the historical and socio-cultural needs of the Spanish-speaking

students, six years of experience in bilingual education in Chicago, and the data gathered through the questionnaire, documents, and interviews, a model program was developed. Its implementation will employ the continuous progress philosophy with regard to language, culture, integration patterns, and advancement in content areas. It will be a two-way approach serving Spanish as well as English-dominant students, with each group learning and perfecting their own and the other language and using both languages as tools for learning the content subjects. It will be developmentally integrated. It will follow the maintenance type philosophy. It will preserve and perfect the students' native language and culture while learning the second language and culture. It will function as a total school program rather than a minor part of a regular school program. Its long range outcome will be educated bilingual, bicultural students. The model includes a curriculum for each unit and charts of the organizational structure. The charts depict the development of language usage, integration patterns, the organization of the staff, and the school floor plan.

The concept of a multilingual-multicultural magnet school was briefly compared to the researcher's model. The situation regarding teacher training in various universities was outlined and an innovative teacher training program was suggested. The availability of textual and non-textual materials for bilingual education programs was examined and the development of relevant materials was proposed.

Trends, conclusions, and recommendations that resulted from the study and based on the information gathered from the questionnaire, documents, and interviews were reported.

Order No. 75-14,524, 314 pages.

A PROPOSED MODEL FOR A BILINGUAL APPROACH MODE OF INSTRUCTION AT THE TWO YEAR COLLEGE LEVEL (SPANISH-ENGLISH)

Irizarry, Maria Antonia, Ed.D.
Columbia University Teachers College, 1977

Sponsor: Professor Mordecai S. Rubin

The purpose of this study is to examine the various bilingual programs and bilingual situations existing in seven two year colleges in New York City, and to define their potential strengths and weaknesses by studying their instructional programs and develop an alternate model program for bilingual instruction at the junior college level.

The method used in this examination was as follows: 1. Locate the number of institutions complying with the pursuits of this study that offered bilingual instruction. 2. Compile and prepare a questionnaire to obtain necessary information and the curricular components of each program. 3. Analyze and classify the data based upon the following criteria: a) functional components; b) medium of instruction; and, c) program of study. 4. Visit representative institutions for additional data and study. 5. Interpret the data, determine the strengths and weaknesses of each program. 6. Based on the conclusions reached in the investigations, formulate a Suggested Model for Bilingual Instruction at the Two Year College Level.

Once the study of the target two year colleges was complete, it was logical to summarize the various findings and to draw them into meaningful conclusions. It was found that the closer an institution came to being a full bilingual/bicultural establishment, the more instructional components were present. Only three institutions, Community Colleges C, D, and E maintained full bilingual programs. The remaining colleges offered one or more of the components and, in general, provided all course studies in the English language. Community College A, Community College C and Community College D provided courses taught in Spanish, while Community College E and Community College F provided alternate languages in one course. The remaining colleges taught only in English.

The institution for a model for a bilingual approach mode of instruction at the two year college level ideally should follow an interdisciplinary approach, that is, the articulation of the bilingual/bicultural curriculum within a framework of coordination of instruction and the different college departments. The courses taught will be exactly the same in terms of content and approach as the courses taught in English, so that the student will derive maximum benefit from the subject. The only difference will be in the medium of instruction. Thus, the possible pattern of bilingual/bicultural education in a two year institution should be as follows: *FIRST SEMESTER* - English As A Second Language for beginners. Three courses taught in the native language, one of them being in Spanish Language skills. *SECOND SEMESTER* - English As A Second Language, intermediate course. Two courses should be taught in the native language, one of which should be Spanish Language skills, and the second, a Spanish subject matter course. Finally, one course should be taught in English. *THIRD SEMESTER* - English As A Second Language, advanced. One course taught in the native language, and two courses taught in English. *FOURTH SEMESTER* - All courses taught in English, and Spanish composition or literature.

Order No. 77-13,022, 146 pages.

COMPARATIVE STUDIES: BILINGUAL/MONOLINGUAL

A COMPARATIVE STUDY OF THE LINGUISTIC FUNCTIONING OF BILINGUAL SPANISH-AMERICAN CHILDREN AND MONOLINGUAL ANGLO-AMERICAN CHILDREN AT THE THIRD GRADE LEVEL

(Publication No. 15,122)

Sister Mary Arthur Carrow, Ph.D.
Northwestern University, 1955

This investigation was designed to study the linguistic functioning of two groups of third-grade children who differed with respect to the number of languages spoken, but who were otherwise similar in regard to age, socio-economic background, and intelligence. The children included in the bilingual group had been exposed to the Spanish and English languages in the home from infancy, could communicate in both languages by the age of three, and preferred the English language at the time of testing. The children included in the monolingual group had been exposed only to the English language in the home from the time of infancy and could communicate only in the English language.

The following language measures were employed to obtain information regarding the linguistic functioning of the bilingual and monolingual children:

1. The California Achievement Test, Primary, was used to measure achievement in silent reading, spelling, mechanics of English, and arithmetic reasoning.
2. The Durrell-Sullivan Reading Capacity Test, Word Meaning, was used to evaluate performance in understanding (hearing) vocabulary.
3. The Gilmore Oral Reading Test was employed to test achievement in oral reading accuracy, comprehension, and rate.
4. Fairbanks' Test of Articulation for Non-Readers was used to evaluate articulatory proficiency.
5. A three-minute sample of oral language was employed to study oral language usage as measured by the total number of words spoken, the number of different words used, clause length, degree of subordination, complexity of sentence structure, and grammatical errors.

The major findings of the investigation are summarized as follows:

1. With the 5 per cent level of confidence used as the critical level, the monolingual group was significantly superior to the bilingual group in oral

reading accuracy and comprehension, hearing vocabulary, arithmetic reasoning, mechanics of English, and the extent of speaking vocabulary as measured by the number of different words used. The inferiority of the bilingual group in oral reading accuracy and comprehension was found to be related to defective articulation.

2. There was no significant difference between the bilingual group and the monolingual group in silent reading vocabulary and comprehension, spelling, oral reading rate, number of words spoken per three minute period of time, clause length, degree of subordination, and complexity of sentence structure.

3. Fifty-two per cent of the bilingual children had articulation defects; whereas the percentage of the monolingual children with such problems was 14. When the articulatory defects were classified as to type of error, the bilingual children made more errors of substitution and the monolingual children more errors of distortion than any other type.

4. The bilingual children made 80 per cent more grammatical errors than the monolingual children. The main errors of the bilingual children were those involving the conjugation of verbs, the use of the correct preposition, and the correct choice and use of words.

The conclusion was drawn that the bilingual children were handicapped in some aspects of language, particularly those related to vocabulary and articulation. Results obtained suggested that the language difficulties of the bilingual children in this study were related to a paucity of linguistic and experiential stimuli to vocabulary development and the presence of confused and incorrect language and speech patterns in the home.

222 pages. \$2.78. Mic 56-628

**ABILITY, ACHIEVEMENT AND BILINGUALISM:
A COMPARATIVE STUDY INVOLVING
SPANISH-SPEAKING AND ENGLISH-SPEAKING
CHILDREN AT THE SIXTH GRADE LEVEL**

(Order No. 63-777)

Bruce Edward Johnson, Ed.D.
University of Maryland, 1962

Supervisor: Dr. Daniel A. Prescott

PURPOSE

In essence, this study explored three questions:

1. Is it possible to predict differences appearing between Mexican and Anglo children on group tests from a given theoretical framework about cognitive functioning?

2. Do the tests themselves provide data adequate enough to support conclusions concerning the differences existing between Mexican and Anglo school children?

3. Given a curriculum designed to encourage the learning of English incidentally as a language, do the children experiencing this exhibit superior test performance compared to other children not so involved?

The location used for this study was a town of 15,000 population in Southern California, having 30 percent of its elementary school children speaking Spanish as their vernacular.

PROCEDURE

The study design was divided into four major facets:

1. Levels. Two population groups were used from which to draw samples: The Spanish-speaking Mexican children, and the English-speaking Anglo children. At the termination of the study, 55 Mexicans (25 girls, 30 boys) and 48 Anglos (17 girls, 31 boys) were involved, all living within the city boundaries, and maintaining a single classroom assignment during the school year. The Warner Index of Status-Characteristics Scale was used to determine the social class status for every child in the study samples, with 90 percent falling into the lower classes. In addition, a survey of reading habits, television viewing, movie attendance, and radio listening was obtained, and revealed comparable behavior on the part of both groups. All the children were enrolled in the sixth grade of either of two elementary schools.

2. Treatments. Two schools were involved, School I (SI) and School II (SII). They divided the Mexican children almost equally and also provided a matched population of Anglo children at the sixth grade level. Schools I and II were of similar size and design, and followed the same basic curriculum as outlined for the district. SII offered a separate "enrichment" program, with special classes operating one-hour-per-day, four-days-per-week. The fifth and sixth grade children at SII were assigned to five different groups which were rotated among five different class settings during the year. Each class was devoted to a specific content area, with its activities designed to foster interests and provide individual attention without the usual grading, tests, and assignments. In these five classes, the emphasis was on motivation and individual learnings, especially a

more profound involvement with English as a communicating language. SI did not have this program, and was used as a control for comparative purposes.

3. Testing. Four tests were administered at two different periods:

California Test of Mental Maturity, 1957 Edition, Form A.

SRA Test of General Ability, Form A, Grades 4-6.

California Achievement Test, 1957 Edition, Form W.

SRA Achievement Series, Form A, Grades 4-6.

For all tests given to the children in both schools, the initial administration was conducted from September 25 to October 12, 1961, and the terminal administration from March 12 to April 13, 1962. Approximately six months elapsed between test administrations, and the tests were given by classroom teachers who had received a training workshop in these instruments.

4. Evaluation. An analysis of variance was performed on all the data collected. The initial analysis identified differences existing between levels in reference to the theoretical predictions, while the terminal analysis indicated changes occurring between treatments with reference to the predictions based upon assumptions underlying the "enrichment" curriculum. Statistical comparisons between levels and treatments were made by t-tests when the F-test proved significant.

FINDINGS

1. Anglo children performed at a significantly higher level than Mexican children on the following measures: CTMM Total IQ, CTMM Verbal IQ, CAT Reading Vocabulary, CAT Reading Comprehension, SRAAS Reading Vocabulary, SRAAS Reading Comprehension, SRAAS Grammar, SRAAS Arithmetic Reasoning, and CAT English Mechanics.

2. There were no significant performance differences between Anglo and Mexican children on the following measures: TOGA IQ, CTMM Non-verbal IQ, SRAAS Arithmetic Computation, CAT Arithmetic Reasoning, and CAT Arithmetic Fundamentals.

3. On any tests administered there were no significantly greater score increases by the children attending SII when compared to scores received by children attending SI.

CONCLUSIONS

1. Ability and achievement test differences between Mexican and Anglo children can, with reservations, be predicted from a given theoretical framework about cognitive functioning.

2. Ability and achievement differences do exist to a significant degree between Anglo and Mexican children.
3. The differences existing between Spanish-speaking and English-speaking children can be adequately measured by available group tests.
4. The curriculum evaluated in this study did not produce superior performance on the part of children experiencing it when compared to a control group lacking only this curriculum experience.
5. Changes in ability and achievement scores were equivalent in value and in direction for both the Mexican and Anglo children.

Microfilm \$2.75; Xerography \$8.80. 195 pages.

BILINGUALISM AND READING DEVELOPMENT: A STUDY OF THE EFFECTS OF POLISH-AMERICAN BILINGUALISM UPON READING ACHIEVEMENT IN JUNIOR HIGH SCHOOL

(Order No. 64-651)

Leonard Vincent Kosinski, Ph.D.
The University of Wisconsin, 1963

Supervisor: Professor Theodore L. Harris

THE PURPOSE AND PROCEDURE

The purpose of this study was to determine if a selected group of Polish-American bilinguals differed among themselves and from a group of monolingual counterparts in reading performance. The findings are based on the measured performances of matched groups of 101 bilinguals and 101 monolinguals in a single junior high school in Milwaukee in 1960. The bilinguals were identified by two language questionnaires, and each of the 202 subjects were matched for the factors of intelligence, chronological age, grade status, sex and geographical and ethno-socio-economic status. Three instruments were used to ascertain the intelligence, reading achievement and socio-economic levels of all students involved.

DESIGN AND TREATMENT OF DATA

Two bilingual categories were defined; the first category comprised 32 bilinguals who knew both Polish and English before starting grade school and the

second category, 69 bilinguals who knew only English before starting grade school and then learned Polish later. Twenty-six student *t* tests were performed upon mean scores for students in selected categories in order to secure answers to the following six questions:

1. Is there a significant difference in reading achievement between two bilingual groups differing in degree of bilingualism at the 8th grade level?
2. Is there a significant difference in reading achievement between bilingual and monolingual groups at the 8th grade level?
3. Is there a significant difference in reading development between bilingual and monolingual groups from 6th to 8th grade?
4. Is there a significant difference in intelligence scores for the combined bilingual and monolingual group A and group B at the 8th grade level?
5. Is sex a differentiating factor in reading achievement between bilingual and monolingual groups at the 8th grade level?
6. Is there a significant difference in 6th and 8th grade reading achievement between the means of bilingual and monolingual categories?

Of the 26 comparisons made of the differences of the reading achievement means, 14 were found not significant and 12 were significant. The majority of the findings that were not significant dealt with comparison of bilinguals with bilinguals, and monolinguals with monolinguals. The comparisons of bilinguals with monolinguals in this study showed statistically significant differences between them. Four other combined group comparisons led to findings that were also significant.

FINDINGS

One major conclusion relates to the fact that bilinguals who knew Polish and English before beginning first grade achieved as well on a standardized 8th grade reading test 8 years later as did their matched monolingual counterparts. The progress of this group was also substantially the same between grades 6 and 8 as that of the matched monolinguals. Furthermore, they achieved as well or better at grades 6 and 8 than did the bilinguals who learned Polish after the first grade. It would appear, therefore, that early Polish-American bilingualism is not a disadvantage for reading achievement in English.

A second conclusion is based upon the finding that the bilinguals who knew

only English and learned Polish after the first grade, consistently scored below their matched monolingual counterparts in reading achievement. On the other hand, it has been shown that they compared favorably in reading performance with those who learned Polish earlier. This suggests that time of learning Polish is likewise not disadvantageous to reading achievement measured in the middle junior high school period.

A final conclusion rests upon inspection of the absolute means which showed that bilingual and monolingual students were actually very close in their reading achievement. It should also be noted that neither the grouped bilinguals nor monolinguals achieved grade level expectancy in their reading performance.

Microfilm \$2.85; Xerography \$9.90. 217 pages.

INTELLIGENCE AND BILINGUALISM AS INDEPENDENT VARIATES IN A STUDY OF JUNIOR HIGH SCHOOL STUDENTS OF CHINESE DESCENT

(Order No. 64-8999)

Martin K. Chen, Ed.D.
University of California, Berkeley, 1964

I. Purpose of the study: to investigate the effects of bilingualism, separately and in different combinations, on linguistic skills as measured by English tests. Specifically, the study is designed to explore the following areas:

A. Is there a difference between bilinguals and monolinguals in performance in English tests regardless of intelligence? If there is a difference, which group is superior?

B. Is there a difference between bilinguals and monolinguals in ability to use English when intelligence is taken into consideration? If there is a difference, which group is superior?

C. Is there a difference in performance in English tests under the two conditions—stress and non-stress, regardless of the linguistic and intelligence factors? If there is a difference, which of the two conditions is more conducive to better performance?

D. Do bilinguals suffer a handicap in English tests under stress conditions? If they do, which category—high or low intelligence—suffers more?

II. Procedure. Altogether 160 Chinese students attending Westlake Junior High School in Oakland, California, were divided into four categories on the

intelligence and linguistic variables: "high" monolinguals, "low" monolinguals, "high" bilinguals, and "low" bilinguals. Then category by category, they were randomly assigned to two testing conditions—stress and non-stress. Stress was produced by telling the subjects, just before testing began, that their parents would be notified if their scores were not as high as expected. The rationale for this is that as Chinese students are usually sensitive matters concerning family honor, this abrupt information should cause considerable anxiety.

The subjects were given the 1957 Revision of the California Reading Test, Form W. This test provided three scores: a reading comprehension score, a reading vocabulary score, and a total reading score. These provided the criteria for the analysis of variance and t tests.

III. Findings and conclusions.

1. The four categories do not perform differentially under the two testing conditions.
2. There is no significant interaction between testing condition and category.
3. The four categories of subjects differ significantly in performance regardless of testing condition.
4. The low bilinguals tend to perform better in reading vocabulary under stress conditions than under non-stress conditions.
5. The low monolinguals tend to do better in reading comprehension under stress conditions.
6. The high monolinguals tend to outperform the high bilinguals when testing condition is held constant.
7. The low monolinguals tend to better the low bilinguals in reading vocabulary when testing condition is held constant.
8. The high intelligence group is superior to the low intelligence group when both testing condition and the linguistic variable are held constant.
9. When intelligence and testing condition are held constant, the monolinguals are shown to be greatly superior to the bilinguals on all three criteria.

It is inferred from these findings that bilingualism is a factor in the inferior performance of the bilinguals. This phenomenon is to be understood from a study of the psychology of language, which shows that understanding of language is from syncretism to analysis, not vice versa. As the bilinguals have to grapple with two languages that are syntactically vastly different, they have not succeeded in progressing from the stage of syncretism to the stage of analysis, with the result that they cannot discern the finer points in English usage.

IV. Implications. The evidence produced in this study warrants the recommendation that the introduction of a second language in the elementary school

curricula be delayed until such time as it can be demonstrated that the children have learned their English skills reasonably well. Then they are less likely to be confused by the syntactical peculiarities of another language.

Microfilm \$2.75; Xerography \$5.00. 99 pages.

**READING COMPREHENSION IN THE NATIONAL LANGUAGE:
A COMPARATIVE STUDY OF BILINGUAL AND
ALL-SPANISH APPROACHES TO READING
INSTRUCTION IN SELECTED INDIAN SCHOOLS
IN THE HIGHLANDS OF CHIAPAS, MEXICO.**

(Order No. 67-118)

Nancy Docia Modiano, Ph.D.
New York University, 1966

The purpose of this study was to determine whether reading comprehension in the national language can be achieved more effectively by members of linguistic minorities when all reading instruction is offered in that language, or when they first become literate in their mother tongue. The hypothesis of the study, implicit in educational policies throughout the United States, was that reading comprehension in the national language is best achieved when all reading instruction is offered in the national language.

The sample consisted of students in matched schools in each of three Indian *municipios* (tribal areas) in the Highlands of Chiapas, Mexico; some attended monolingual Federal and State schools, in which all reading instruction was offered in Spanish, while others attended bilingual National Indian Institute schools, in which literacy was first taught in the mother tongue.

The organization and language programs of the schools were described. Two measures of reading comprehension in the national language were obtained: 1. Teachers' appraisals of individual students, dichotomized as able or not able to read with comprehension in Spanish; 2. Scores on a group test of reading comprehension in Spanish, developed for this study.

The internal reliability of the group test was demonstrated by the split-half method ($r = .965$, $n = 455$). Validity was demonstrated both through the test's construction (it used material common to the lives of the subjects and followed formats common to reading comprehension tests currently in use in the United States); and statistically, by comparing it to teachers' evaluations ($r = .492$,

$n = 411$), an individualized test of reading comprehension developed for this purpose ($r = .651$, $n = 316$), and scores on the reading comprehension sections of national promotional examinations ($r = .572$, $n = 104$).

The hypothesis of the study was not substantiated by the data. A larger proportion of students in the bilingual Institute schools, rather than in the monolingual Federal and State schools, were selected by their teachers as being able to read with comprehension in Spanish (Chi-square = 53.135, $p < .001$). Means on the group reading test were also significantly higher in the bilingual Institute schools ($F = 14.122$, $p < .01$); in addition, there were significant differences in test scores among the *municipios* ($F = 10.881$, $p < .01$). There were higher proportions of literate adults in hamlets served by bilingual Institute schools (Chi-square = 35.964, $p < .01$), which were also more effective in reaching the more resistant members of the child populations, the girls.

Based on the data of this study, it now appears that youngsters of linguistic minorities learn to read with greater comprehension in the national language when they first become literate in their mother tongue, rather than when they receive all reading instruction in the national language. When they learn to read in the mother tongue they learn one new skill, reading. If they first learn to read in the national language they learn two only somewhat related skills, a new language and reading; they learn to read from material which to them has no meaning, yet meaning is essential for reading comprehension. The resultant confusion appears to delay and discourage reading comprehension in the national language. Communities' and teachers' attitudes also affect the achievement of reading comprehension in the national language.

Microfilm \$3.00; Xerography \$8.20. 180 pages.

DIFFERENTIAL EDUCATIONAL ACHIEVEMENT IN A BILINGUAL COMMUNITY

(To obtain a microfilm copy please order directly
from the National Library of Canada at Ottawa.
Not available until five years after degree granted.)

Richard Austin Michael Carlton, Ph.D.
University of Toronto, 1967

The society of northern Ontario developed about those industries, resources and transportation networks which attracted and held population. From the

beginning, however, the Franco-Ontarien has been located outside the centres of power which set the direction and pace of this development. French and English came to the north for different reasons, possessed very different skills, and had vastly disproportional support from southern centres of political power and economic influence. Social and economic dominance of the English-speaking population rested upon monopolies of capital, technological skill, media, and the social skills of industrialization and bureaucratization. Growth of the town-based English-speaking industrial élite could not keep pace with the expansion of the larger society hinged upon industrial development; the French-speaking population thus inherited a numerical and extra-industrial dominance, in terms of which the opportunities for social and occupational mobility have been very nearly maximized.

The separate bilingual educational system which successfully protected the cultural, linguistic and religious identity of this expanding French community served, as well, to protect the English monopolies of industrial skill and economic power. Both French and English schools became the socializing agents of traditionally distinctive local cultures. French clergy and secular élite aimed at the growth of a consciously Catholic French-speaking "Ontario du nord" which would provide security of status to established religious interests, and expanding occupational opportunities outside industry for the new middle class. The bilingual school system came to be shaped by linguistic and religious interests at the expense of academic congruity and continuity with English language secondary and tertiary institutions.

Isolation of the bilingual schools from the larger Ontario system produced systematic linguistic social and academic barriers in the transition to higher levels of English language education, resulting in heavy mortality among French-speaking students. Bilingual schools tended to become terminal institutions, reproducing the educational occupational disadvantages of the local French-speaking populace.

While both French and English schools ostensibly aim to prepare the young people adequately in terms of broadly recognized social and work skills, differences in local history and experience, in the horizons within which educational and work opportunities are viewed, and in the articulation of community goals continue to make for differential academic preparation and occupational opportunity. To this extent, the system of formal education contributes to the persistent relative disadvantage of French Canadian workers, who can neither compete for the best places in local industry, nor market their surplus of labour in the south.

The conservative impact of community structure upon the functioning of the schools was explored through an intensive study of one northern industrial community, taken together with its rural environs. Selected cohorts of secondary school entrants provided evidence of differential educational achievement,

while tests of divergent academic and linguistic preparation in the bilingual schools affirmed the existence of systematic transitional barriers to the advancement of bilingual pupils.

THE EFFECTS OF ONE EXPERIMENTAL BILINGUAL PROGRAM ON VERBAL ABILITY AND VOCABULARY OF FIRST GRADE PUPILS

Enid May Buswell Bates, Ed.D.
Texas Tech University, 1970

Chairman: Dr. C. Len Ainsworth

The primary purpose of this study was to compare the mean gain in English verbal ability of selected first-grade Mexican American and Anglo American pupils enrolled in a selected bilingual program with pupils not enrolled in the program. The secondary purpose of this study was to ascertain if there was a significant difference in the mean gain in Spanish and English vocabularies made by Spanish-speaking and non-Spanish-speaking first-grade pupils receiving bilingual instruction.

Four hundred fifty-one pupils, the total first-grade populations of five schools in three towns in West Texas, were involved in the study. One hundred seventy pupils comprised the ten bilingual experimental classrooms and 281 pupils comprised the sixteen comparative classrooms. Approximately 60 percent of the population were Mexican Americans who came from an environment in which the dominant language was Spanish.

The bilingual program used a team teaching approach having one bilingual teacher working with two cooperating teachers in each of the five schools. The bilingual teacher was assigned to a class group for two hours daily with 50 percent of the time spent in instruction in Spanish, and the remaining 50 percent of the time spent in instruction in English. Instruction for the remainder of the school day was primarily in English under the guidance of the cooperating teacher only.

In the comparative group classrooms, instruction was given in English by the regularly assigned classroom teacher. There was no structured program for teaching Spanish. Instructional models characteristic of the State of Texas were used.

The Science Research Associates Primary Mental Abilities Test was used as

a control variable. There were no differences in mean age, sex, minimum days in attendance, and socioeconomic level between the two groups. Analyses of covariance was computed to test five null hypotheses concerned with mean gain in English verbal ability of the experimental and comparative groups. Data were obtained from pretest and posttest scores on the *Science Research Associates Verbal Meaning Test*, a subtest of the mental abilities test.

Within the experimental group, the *Peabody Picture Vocabulary Test* was used as a pretest and posttest in English and Spanish to ascertain mean gain in English and Spanish vocabularies. The *t*-test was used to test nine null hypotheses.

The results of the selected bilingual program on verbal ability and vocabulary of first-grade pupils were as follows:

Although Mexican American and Anglo American first-grade pupils who were enrolled in a bilingual program of instruction spent at least one hour a day in Spanish language development, there was no significant difference in their mean gain in English verbal ability and that made by pupils not enrolled in the program.

There was no significant difference in the mean gain of the total experimental group between English and Spanish vocabularies. Mexican American pupils had a significantly higher mean gain in English vocabulary than the Anglo American pupils, while the Anglo American pupils had a significantly higher mean gain in Spanish vocabulary than the Mexican American pupils.

These findings seem to suggest that neither the Mexican American nor Anglo American pupil has been penalized in English verbal ability by being enrolled in a bilingual program of instruction. The results further suggest that the pupils enrolled in the bilingual program have had the added bonus of language development in Spanish.

Many Spanish-speaking pupils have not attained a degree of English verbal proficiency comparable to that of their English-speaking counterparts according to the mean test scores obtained from the *Science Research Associates Verbal Meaning Test*.

Order No. 71-9620, 101 pages.

THE EFFECTS OF BILINGUAL SCIENCE INSTRUCTION ON THE VOCABULARY, COMPREHENSION ACHIEVEMENT, AND CONCEPTUALIZATION OF ELEMENTARY SCHOOL CHINESE CHILDREN WHOSE SECOND LANGUAGE IS ENGLISH

Jolson Pak-leung NG, Ed.D.
University of California, Los Angeles, 1970

Chairman: Professor Cornelius Troost

This study investigates the effects of bilingual instruction as revealed in several aspects of science learning. The study measures the differences in vocabulary, comprehension achievement and conceptualization between two groups of Chinese children who were taught monolingually (using English) and bilingually (using both English and Cantonese, a Chinese dialect). The study adopted the Randomized Control-Group Pretest-Posttest Design. Fifty-one fifth and sixth grade Chinese immigrant children were selected randomly from an elementary school in Chinatown, Los Angeles, California. The children were assigned randomly to monolingual and bilingual teaching methods. Teaching materials were provided by the Division of Instructional Planning and Services, Los Angeles City Unified School District. *Concepts in Science 6*, the textbook required by the State of California for elementary children, was used as a reference.

Test items for the pretest and posttest in the study were validated by a committee of three professors of the University of California, Los Angeles. These professors were Dr. Paul Farrington of the Chemistry Department, and Dr. Wilbur Dutton and Dr. Cornelius Troost, both of the School of Education. The subjects were exposed to both the pretest and posttest. The duration of using the two teaching methods was four weeks with two one-hour classes each week for each group. The following hypothesis was formulated: Children taught bilingually will achieve better results than children taught monolingually on multiple choice tests for vocabulary, comprehension achievement, and conceptualization in science. On the basis of statistical evidence the hypothesis was partially accepted; it was found that children taught bilingually surpassed children taught monolingually only in vocabulary at the 0.05 confidence level and in conceptualization at the 0.001 confidence level¹.

An analysis was also made to test the following subhypotheses:

1. Boys do better than girls of the same group on a test, the results of which have been found to be statistically significant.
2. Sixth graders do better than fifth graders of the same group on a test, the results of which have been found to be statistically significant.
3. Children who have lived longer in this country do better on a test than those children of the same group who have lived not so long in this country, providing the results of the test have been found to be statistically significant.

No significant evidence was found to support any of the above subhypotheses.

Correlation among the gain scores of each group in any of the three tests which measured the three aspects of science learning revealed that either no correlation or very low correlation existed between any two of these aspects of science learning.

A discussion concerning these findings follows. The employment of the

children's mother tongue might have provided a sufficient stimulus to the children in the Bilingual Teaching Group to enable them to learn better in vocabulary and conceptualization both of which require the children's memory and the teacher's explanation to facilitate recall. But such a teaching method may not enhance comprehension achievement which requires understanding of the reading materials in which the relationships of ideas and reasoning processes are involved. Recommendations were made to teach vocabulary and concepts bilingually and comprehension monolingually.

Additional areas of research suggested by this study may be described briefly. These areas involved comparative studies of achievement between elementary and secondary Chinese students and between pupils of two ethnic groups; the achievement of children in two subjects using similar methods; teacher recruitment; the grouping of children; and the adequacy of the current curricula and the possibility of designing new curricula for children whose second language is English.

Order No. 71-4879, 114 pages.

A COMPARISON OF CERTAIN STRUCTURES WRITTEN IN ENGLISH BY MONOLINGUAL AND BILINGUAL SIXTH GRADERS

Winona Lee Chang, Ed.D.

Boston University School of Education, 1971

PURPOSE

To determine whether bilingual twelve-year-olds of average and above-average intelligence wrote English as their monolingual classmates of similar ability did.

PROCEDURE

Sixth graders in Boston, Massachusetts, and Lewiston, Maine, were administered the Lorge-Thorndike Intelligence Test, Verbal and Nonverbal, Level C, and a modified form of the Hoffman Bilingual Schedule. Subjects selected scored above 84 IQ and were classified as monolingual or bilingual from answers on the Hoffman questionnaire. The final samples included only those pupils less than 12.1 years in age on January 1st of their sixth grade year.

For the analysis of data, the 129 subjects were treated as two samples, each

consisting of two language groups. These groups were: (a) thirty-seven monolinguals and thirty-eight bilinguals in Boston, and (b) thirty-five monolinguals and nineteen bilinguals in Lewiston.

The experimental data were collected from writing samples, the Language Test of the California Achievement Test Battery for Elementary School, Form W, and from a modification of the fifty-item Test on Connecting Words and Phrases by A. F. Watts. Mean scores were found and compared between language groups by city.

The written data were from six compositions. Eighty language variables were analyzed for group differences.

An analysis of covariance was also done to adjust the means for the effect of some sampling variables in the Boston groups and to make the needed changes as the result of sampling error.

RESULTS AND CONCLUSIONS

The comparison of written language performance of monolingual and bilingual sixth graders of similar IQ's and chronological ages in two cities revealed that:

1. In Boston, the monolingual group exceeded the bilinguals significantly in number of words written, sentence length, variety and number of total clause and phrase structures, and subordination ratio. As a group, the Boston bilinguals made more usage and grammatical errors than the monolinguals.
2. The monolinguals of Boston scored significantly higher on the Watts test and obtained a higher mean grade placement on the California Language Test.
3. For the Lewiston sample, the differences between monolingual and bilingual performance were not as clear-cut. The Lewiston bilinguals wrote significantly more long T-units* and adjective clauses, and achieved a larger subordination ratio than the monolinguals. The monolinguals made significantly more subject-verb agreement errors than the bilinguals.
4. The Lewiston monolinguals, however, scored significantly higher than the bilinguals on the Watts test.
5. The girls in each language group scored significantly higher than the boys.
6. Socioeconomic levels correlated significantly with language performance for the Boston bilinguals, but generally there were no significant relation-

*"Minimal terminable unit" devised by Kellogg Hunt to determine sentence structure in Children's writing

ships found for the other three language groups. The range of significant correlations for the Boston bilinguals indicated a low to fair predictability.

7. The relationship between the degree of bilingualism and written English was insignificant for both bilingual groups.
8. The results of the analysis of covariance indicated that there were genuine differences between monolingual and bilingual use of English in the Boston sample.

DISCUSSION

The results of the Boston investigation supported the hypothesis that monolingual and bilingual children differ in their written English. In Lewiston, the size of the sample might have influenced the results of that investigation, and a replication of the study with a larger sample size may produce other findings.

Despite significant differences between the two language groups, the bilinguals in the study demonstrated an ability to write English. They would, therefore, benefit from classroom activities geared to resolving their individual difficulties with English. When these pupils are given such assistance, they will probably become equally literate in their multiple languages.

Order No. 71-26,681, 219 pages.

AN EVALUATION OF BILINGUAL EDUCATION WITH A CROSS CULTURAL EMPHASIS DESIGNED FOR NAVAJO AND NON-NAVAJO STUDENTS IN SAN JUAN COUNTY, UTAH, 1969-1971

Calvin R. Durfey, Ed.D.
Brigham Young University, 1971

Chairman: Milford C. Cottrell

The purpose of this study was to determine if there were significant differences in academic achievement and oral English development between pupils enrolled in the bilingual educational program in San Juan School District and pupils enrolled in a conventional program in the control schools in the same school district during the 1969-1971 school year.

Evaluation instruments were administered to kindergarten, grade one and grade two Indian and non-Indian pupils at the beginning and end of each school

year. The pre and posttest scores were analyzed by the statistical analysis of variance to assess differences at the beginning and end of each school year. To assess gain differences among the independent variables, the statistical analysis of covariance was performed on the scores of each posttest utilizing the corresponding pretest scores as the covariate.

The findings revealed that kindergarten and first grade Indian and non-Indian pupils enrolled in the bilingual program made gains which were equal to or significantly greater in academic achievement than similar pupils enrolled in the control schools. The academic achievement differences, however, during grade two favored the control group. Minor differences on oral English development generally favored the experimental group.

Order No. 72-1745, 277 pages.

THE RESPONSES OF NINTH-GRADE BILINGUAL ADOLESCENTS TO FOUR SHORT STORIES

John Frederick Fanselow, Ph.D.
Columbia University, 1971

PURPOSE

This investigation sought answers to the following questions: How many non-specifically elicited responses and what types of responses do ninth-grade bilingual Spanish-English students make after reading only sections of short stories, and again after reading the complete stories? How do such responses compare with those from previous studies; what traits and values attributed to Spanish speakers in New York City are to be found in the responses?

PROCEDURES

Sixty bilingual Spanish-English ninth-graders with a mean reading score of 8.9 read four stories: "All the Years of Her Life" by Morley Callaghan; "Prelude" by Lucile Payne; "Reverdy" by Jessamyn West; "The Man in the Shadow" by Richard Child. The stories had been carefully divided into six divisions in order to try to discover the readers' responses while reading as well as after the entire story had been read. After each division and at the end of the story their responses to the question, "What feelings or reactions do you have about the plot, characters, language or ideas in the section you have just read?" were tape

recorded during personal interviews. The transcripts were coded into one of six categories: literary judgments, interpretations, narrations, associations, self-involvement responses, and prescriptive judgments. The categories, as well as the stories and procedures, were those used by James R. Squire in 1956 and reported in *The Responses of Adolescents While Reading Four Short Stories* (Champaign, Ill.: National Council of Teachers of English, 1964).

FINDINGS

Though both Squire's group and the bilingual students made the same mean number of responses to the four stories (279), the percentage of responses in each category differed. The bilingual students made fewer responses coded as literary judgments, interpretations and prescriptive judgments than Squire's. The bilinguals' responses contained fewer critical predispositions, stock responses, irrelevant associations and failures to grasp the literal meaning than Squire's group. The bilingual students evidenced as much searching for certainty as Squire's students, but the wish for a happy ending among the bilingual students was limited to "Prelude," while Squire's group looked for happy endings in all four stories.

The bilinguals' literary judgments were superficial, as were those of Squire's students. The bilinguals' interpretations were limited to character interaction with hardly any reference to details or their significance; their retelling of incidents involved not only major incidents but also minor ones quite unimportant to the development of the stories. Both groups selected the rich girl in "Prelude" as their favorite character.

No significant differences in types or numbers of responses were found between sub-groups within the sample as determined by reading scores in English and Spanish, age, sex, enjoyment or understanding of the stories, place of birth, or early childhood schooling.

Evidence in the responses of the presence of traits usually attributed to Latins in New York was fragmentary and contradictory. Individual variation in responses was extremely great between students and between an individual student's responses to separate stories.

RECOMMENDATIONS

The fact that the students in this study frequently resorted to retelling of incidents, did not discuss themes, noticed few details and did not discuss their significance, and made superficial literary judgments, suggests that some ninth-graders need assistance in specific areas of responding to stories.

The fragmentary and contradictory evidence of the presence of Latin values in the responses is difficult to explain. Perhaps the students did not possess the

values attributed to Latins in New York. Perhaps the types of responses were similar to those of other groups in form but the reasons for the responses were different and can only be uncovered by further probing.

Order No. 72-1306, 241 pages.

THE EFFECTS OF BILINGUAL INSTRUCTION ON THE ENGLISH LANGUAGE ARTS ACHIEVEMENT OF FIRST GRADE CHILDREN

(Pages 70-77, "Metropolitan Readiness Tests, Form A", pages 79-90, "PMA, Primary Mental Abilities", and pages 92-97, "Stanford Achievement Test", not microfilmed at request of author. Available for consultation at Northwestern State University Library)

Judith Claire Morgan, Ed.D.
Northwestern State University of Louisiana, 1971

Directed by: Assistant Professor Ronald L. Dubois

The purpose of this study was to investigate the following problem: Will first grade pupils who come from bilingual families obtain significantly higher scores through a bilingual educational program than will first grade pupils who come from bilingual families and who are enrolled in a monolingual educational program? The problem as stated was analyzed in relation to English language arts achievement as measured by the *Stanford Achievement Test* at the end of the first year of instruction.

The study was conducted during the 1970-71 school year and subjects were enrolled in the Lafayette Diocese Catholic Schools of Louisiana. In September, 1970, an information sheet to determine the degree of French spoken was administered to the parents. Children of parents whose information sheets were scored above the median on the scale of scores made up the sample pools for both groups. Concurrent validity coefficients of .85 and .68 were established for the information sheet responses by use of the Pearson Product Moment statistical technique.

With the population identified and the sample group selected, both groups were tested for equivalence in mental ability and readiness for formal first grade instruction. All subjects were administered the *Science Research Associates Primary Mental Abilities*. A computed *t* ratio of -.0510 was not significant at the .05 level of confidence and for the purpose of this study, the two groups were considered equivalent in mental ability.

The *Metropolitan Readiness Test* was also administered to both groups. A *t* ratio of .3413 was not significant at the .05 level of confidence and for the purpose of this study, the two groups were considered equivalent in readiness for formal first grade instruction.

Each of the five hypotheses for the study was tested by one-way analysis of variance to test for significant differences on the posttest measure. A correlational ratio, Eta squared, was computed to indicate the proportion of the variance that could be attributed to the treatment effect. The significance of each test was determined at the .05 level of confidence.

The results of the analyses of the data indicated a significant *F* ratio on the tests of Word Reading, Paragraph Meaning, and Spelling. No significant differences were indicated on the tests of Vocabulary and Word Study Skills. Computation of the correlational ratio, Eta squared, in each case, indicated only minimal substantive significance because less than five percent of the total variance was attributed to the treatment effect.

Conclusions:

1. First grade pupils from bilingual families who receive instruction through a bilingual educational program develop greater competency in analyzing words without the aid of context.

2. First grade pupils from bilingual families who receive instruction through a bilingual program demonstrate greater competency in the comprehension of reading passages requiring integration of the meaning of two or more sentences.

3. The first two tests of the *Stanford Achievement Test* (Word Reading and Paragraph Meaning) constitute measures of reading achievement. Therefore, in terms of reading achievement, a bilingual educational program for first grade pupils from bilingual families appears to be superior to a monolingual educational program for first grade pupils from bilingual families.

4. First grade pupils from bilingual families who receive instruction through a bilingual educational program demonstrate greater ability to spell words than do first grade pupils of bilingual families who receive instruction through a monolingual educational program.

5. The two programs were equally effective as far as achievement in Vocabulary and Word Study Skills were concerned. There was a lack of statistical significance at the .05 level of confidence.

Order No. 71-29,287, 114 pages.

THE EFFECTS OF CATEGORIZATION, DEGREE OF BILINGUALISM, AND LANGUAGE UPON THE RECALL OF SELECT MONOLINGUALS AND BILINGUALS

Michael Barry Palmer, Ph.D.
Arizona State University, 1971

Chairman: Dr. Philip Gaffney

A free recall procedure was used with three groups of Spanish-English bilinguals and a monolingual English group. Forty Ss were assigned to groups on the basis of their degree of bilingualism as measured by a self-rating scale and a reaction time technique. Measures were taken on the number of words recalled in English, Spanish, and the Mixed situation under both a categorized and a non-categorized condition. A ratio form of measure was also taken to determine the extent of category clustering, and the extent of language clustering.

Questions considered were (a) Does categorization facilitate recall? (b) Which form of categorization, semantic or language, provides the most powerful organizational schema? (c) What are the relative effects of the degree of bilingualism upon recall? (d) What are the relative effects of language upon recall?

The amount of recall across all lists was greater for the categorized than for the non-categorized condition. The preferred language of recall and category clustering was English, regardless of the group's degree of bilingualism. Semantic categorization was a more powerful organizer than language categorization for all Ss. The lower socioeconomic status groups had better recall than the higher socioeconomic status groups. The use of recall and the extent of category clustering could be used as a measure of the relative degree of linguistic independence.

The poorer performance in Spanish was interpreted as a state of perceptual unreadiness, which was shown to create "interference" for Ss when they were presented with a task requiring simultaneous switching between English and Spanish. This suggests changes for bilingual education programs. It might be advisable to use only English as the medium of communication, despite contrary evidence. As English was shown to be the more highly structured language, another change could occur in the philosophy of bilingual education, whereby English, the stronger language, would facilitate the learning of Spanish, the weaker language.

Further research suggested by the results would be: (a) a replication of the present study, (b) research to test the assumptions of Jensen (1969) that deal with the effects of socioeconomic status upon two kinds of ability, (c) applied research in a school setting, and (d) different methods for the assessment of the degree of bilingualism.

Order No. 71-13,213, 78 pages.

THE EFFECTS OF LANGUAGE CHOICE ON THE TASK SUCCESS OF BILINGUAL CHILDREN

Tomi Deutsch Berney, Ph.D.
Yeshiva University, 1972

The study reported attempted to determine the effects of usual language of instruction, experimental language of instruction and grade level on the performance of "bilingual" children on a specific learning task.

The task consisted of a pictorially-presented test based specifically on information contained in four twenty-minute social studies lessons on the flag. The lessons and the test were presented in either Spanish or English by bilingual teachers to "Spanish-dominant" children at three different grade levels and in two different academic environments. The "experimental" group consisted of children attending a bilingual school who received the majority of their regular instruction in Spanish. The control group, also classified as "Spanish-dominant" were children attending an English-speaking school in the same neighborhood. Experimental data consisted of numbers of correct answers on the 12-item "Flag test." It was hypothesized on the basis of earlier studies that under all conditions children would learn best in their native tongue. This hypothesis was not confirmed, since the highest scores were received by the two second grade groups, one in the experimental school and one in the control school who were taught the test lessons in their regular language of instruction and the poorest performance was among the kindergarteners at the English-speaking (control) school who were taught the test lessons in Spanish. Performance on school-like material appeared to be more strongly affected by regular language of instruction than by native language. The study also failed to confirm the hypothesis that instruction of Spanish-dominant children in English will tend to produce a decrement in their control over their native language. These unexpected findings were considered in terms of various explanatory hypotheses, particularly the notion that in this study the children were required to display only receptive language skills, in contrast to most other studies which have required evidence of mastery of productive language skills.

Order No. 73-1086, 161 pages.

AN EVALUATION OF SOME COGNITIVE AND AFFECTIVE ASPECTS OF A SPANISH-ENGLISH BILINGUAL EDUCATION PROGRAM

Rudolph V. Skoczylas, PhD.
The University of New Mexico, 1972

STATEMENT OF THE PROBLEM

The purpose of this study was to construct and apply an evaluation model to determine if bilingually instructed children in a particular program have in fact suffered a loss in linguistic, academic, or cognitive growth, and if their self-image and attitudes toward the two salient ethnolinguistic groups were less favorable than those of their monolingually instructed counterparts. A small-scale sociolinguistic survey of the participants and their immediate families was conducted and a socio-cultural description of the community was made in order to place the program in the greater environment in which the program operated and in which the children functioned and lived.

PROCEDURE

Two groups of children were compared on the features known or suspected to affect linguistic and mental development. To further increase comparability of the two groups, an analysis of covariance procedure was applied to statistically adjust each of the criterion variables for initial differences in age, intelligence, home educational environment, listening and speaking ability in Spanish, and listening and speaking ability in English. The adjusted mean scores were then tested by analysis of variance.

RESULTS

There were no significant differences between the experimental and control groups on measures of oral English skills, spanish listening comprehension, intellectual functioning, and attendance rates. The experimental group scored significantly higher in spanish speaking proficiency. The experimental group's ratings of five traits on the concepts Me, Anglo-Americans, and Mexican-Americans were significantly higher than those of the control group; the ratings of the remaining traits were not significantly different. The control group scored significantly higher on the Math test administered in English.

Of the seven predictor variables—the seven themes of the home educational environment index—theme 7, parents' education, showed the highest correlation

with four of the six criterion variables. It was also the second best single predictor of the two remaining criterion variables.

CONCLUSIONS

1. When compared to monolingually instructed counterparts, the bilingually instructed pupils showed no evidence of either intellectual inferiority or superiority at the end of two years of bilingual instruction.

2. The bilingually instructed children are learning Spanish and English simultaneously with no apparent difficulty and with an apparent beneficial transfer effect from one language to another.

3. The experimental group's relatively inferior performance on the English Math test suggests that training in Math in Spanish received by most of the children in the experimental group did not transfer when measured in English.

4. The bilingually instructed pupils appear to be developing a positive and democratic attitude toward Anglo- and Mexican-Americans and a self-image that is favorable and not adversely affected by bilingual training.

5. There was no evidence reflected in attendance rates to suggest that the bilingual education program was more demanding than the traditional monolingual program.

6. The best single predictor of academic achievement and cognitive growth was parents' education.

Order No. 73-8381, 180 pages.

AN ANALYTICAL STUDY OF SECONDARY FRESHMEN BILINGUAL EDUCATION AND ITS EFFECT ON ACADEMIC ACHIEVEMENT AND ATTITUDE OF MEXICAN AMERICAN STUDENTS

Donald David Covey, Ed.D.
Arizona State University, 1973

Chairman: Raymond Wochner

STATEMENT OF THE PROBLEM

The purpose of this study was to determine whether: (1) the cognitive achievement in the academic disciplines of English (correctness and appropriateness of expression); Mathematics (ability to do quantitative thinking); and the area of

Reading (literal and inferential) by ninth grade Mexican American students enrolled in a bilingual program, was significantly different from ninth grade Mexican American students enrolled in a regular school program; and (2) attitudes toward self, school, peers, and teachers were significantly different for ninth grade Mexican American students enrolled in a bilingual program than for ninth grade Mexican American students enrolled in a regular school program.

HYPOTHESES TO BE TESTED

There are no statistically significant differences in academic achievement for the discipline of English (correctness and appropriateness of expression); Mathematics (ability to do quantitative thinking); and the area of Reading (literal and inferential) between Mexican American students enrolled in a bilingual program and Mexican American students enrolled in a regular program.

There are no statistically significant differences in attitudes toward self, school, peers, and teachers between Mexican American students enrolled in a bilingual program and Mexican American students enrolled in a regular program.

PROCEDURES

The sample population for this study was a randomly selected group of 200 qualified ninth grade Mexican American students representing a population of 379 Mexican American students who met at least one of the following criteria: (1) demonstrated a limited ability to speak the English language; (2) came from a bilingual home environment; (3) manifested a reading deficiency; and (4) possessed a deficiency in English and mathematics. Students were attending Phoenix Union High School, Phoenix, Arizona, during school year 1970-71.

The *Iowa Test of Educational Development*, Test 3, "Correctness and appropriateness of Expression" and Text 4, "Ability to Do Quantitative Thinking" was used to measure achievement for the disciplines of English and mathematics. The *Stanford Diagnostic Reading Test*, Level II, was used to determine achievement in the area of reading. The *Nebraska Attitude Inventory* was used to measure student attitudes toward self, school, peers, and teachers.

Data from the aforementioned criterion test and attitude inventories were subjected to a one-way analysis of variance for unequal N's to determine if there was a statistically significant difference at the .05 level of confidence.

FINDINGS

With the exception of mathematics, findings showed there were statistically significant differences between groups in the academic discipline of English

and the area of reading. There was also statistically significant difference between groups on attitudes toward self, school, peers, and teachers.

CONCLUSIONS

It was concluded:

1. Mexican American students enrolled in a bilingual education program achieve significantly higher in the academic disciplines of English and the area of reading than do Mexican American students enrolled in the regular school program.

2. Mexican American students enrolled in a bilingual education program have a favorable attitude toward self, school, peers, and teachers; whereas Mexican American students enrolled in a regular educational program do not indicate a favorable attitude toward self, school, other students, and teachers.

3. Mexican American students enrolled in a bilingual education program do not exhibit a significantly higher ability to do quantitative thinking (mathematics) when compared with Mexican American students enrolled in a regular educational program.

RECOMMENDATIONS

The following recommendations were made as a result of the study:

1. That the study be partially replicated with solely a Mexican American student sample classified by socioeconomic status.

2. That the study be replicated *in toto* with another population in order to provide some measure of cross-validation. Special care should be taken with the administration of pre and posttests, especially in the area of mathematics and the ability to do quantitative thinking. The replication of the study would provide a substantial frame of reference for curriculum building.

3. That a study be made to investigate the attitudes of the Mexican American student toward self, school, peers, and teachers for grades 10, 11, and 12.

4. That a study be made to investigate the academic disciplines of science, social science, advanced mathematics, and advanced English and their relationship to the academic success of the Mexican American student.

5. That a study be made which compares the academic success of Mexican American students enrolled in a bilingual educational program with Anglo students enrolled in a regular educational program.

Order No. 73-5305, 204 pages.

THE EFFECTIVENESS OF BILINGUAL EDUCATION ON SECOND GRADE CHILDREN

Jeannette Gardiner, Ed.D.

George Peabody College for Teachers, 1973

Major Professor: Jerold P. Bauch

The purpose of this study was to investigate changes in academic achievement and the self-concept of children as a result of participation in bilingual education. Because relatively little research has been done in this area since the implementation of the Bilingual Education Act (1968), there was sufficient need to measure the impact which bilingual education has had upon the children involved. Attempts were also made to measure the involvement of parents.

An investigation was made of the St. Martin Parish Bilingual Education Program, which is a five-year federal program located in Breaux Bridge and Parks, Louisiana. It is currently in its third year of operation. The entire second grade population of the Bilingual Education Program was selected for investigation, which provided approximately eighty subjects for the experimental group of this study. The control group was selected from the second grade population at Cecelia Primary School, located in nearby Cecelia, Louisiana, a town with virtually the same characteristics as Parks and Breaux Bridge.

Academic achievement in the areas of language arts and mathematics was measured by means of the *Stanford Achievement Test*, (Primary 1 Battery, Form X) and the *French Achievement Test* (locally developed). Self-concept was determined by use of the *Self Appraisal Inventory* and language dominance by the *Language Dominance Screening Test* (locally developed).

The study followed a posttest-only control group, $2 \times 2 \times 2$ factorial design with the independent variables being (1) French-English dominance, (2) sex, and (3) experimental group versus control group. The statistical method applied to analyze the achievement and self-concept test scores was an analysis of variance, whereas the chi square test was used to determine the degree of parent involvement.

Academic achievement was highly significant favoring the experimental group over the control group in the French and English language arts area, the French achievement mathematics area, and the Stanford achievement mathematics area. There were no significant differences shown on the self-concept measurement, whereas the parent involvement measurement did show significance favoring the control group.

The significance of academic achievement favoring the experimental group over the control group indicates that bilingual education is effective for bilingual

children. The data of the study reveal the efficacy of bilingual programs versus non-bilingual programs.

Further research calls for longitudinal studies to investigate the superior nature of bilingual education. Improved measurement techniques in the areas of the self-concept of the child as well as effective measurement of parent involvement could be derived from such studies.

Order No. 73-32,613, 106 pages.

A PSYCHOLINGUISTIC STUDY OF BILINGUAL LANGUAGE ACQUISITION

Nancy Ainsworth Johnson, Ph.D.
The University of Texas at Austin, 1973

Supervisor: David DeCamp

This study uses a Berko-type test for acquisition of the English plural to study bilingual native speakers of Spanish and monolingual native speakers of English at the third, sixth, eighth, and tenth grade levels in San Antonio, Texas. One-hundred fifty-one subjects were studied, approximately thirty six at each grade level; approximately equal groups of subjects were used in ethnic group, sex, grade-level, and experimenter-ethnicity categories. Two experimenters, one Mexican-American and one Anglo, administered the tests. The Berko test was followed by a picture-discussion task in which the experimenter elicited plurals in natural speech, recorded devoicing phenomena in natural speech, and asked the child to tell a story. The picture used in this task was of two children, one Anglo and one Mexican-American, interacting in a school setting; the children pictured are of the same age group and sex as the child being interviewed.

Results of the testing refute the 1969 claims of an experimenter using a Berko-type test in San Antonio with first, second, third, and tenth grade subjects (this earlier project motivated the present study). Where the earlier study found a leveling of performance before the third grade for Mexican-American children, with significant lack of improvement by the tenth grade, this present study finds a relatively constant rate of improvement among these bilinguals, just as among the monolinguals, although both ethnic groups do drop somewhat in performance at the tenth grade level. Misinterpretation of the notion "control of the plural" is also found in the earlier study. Influence of interference on the phonological level is found, refuting the earlier claim of lack of support for use of

the theoretical concept "interference." Strong evidence is reported for the significance of phonological classification as the relevant variable in subjects' use of "null" inflections.

Subjects' performance in inflecting classes of sounds is reported and contrasted, with some evidence offered that subjects used the phonological classification "[+ continuant], [-nasal], [-vocalic], [+ consonantal]" as that calling for vowel-epenthesis, rather than the adult classification "[+ strident], [+ coronal]." Subjects' performance on all phonetic data is transcribed with a system which encodes phonetic variation in production of inflections, similar to transcription used by Labov (1966). All data is "scored" by four major scoring systems, illustrating various approaches to the notion "good" performance in producing English phonology. Themes and labels relating to ethnic identity in subjects' story-task performance are reported, with this data being regarded as basically exploratory—no firm conclusions are drawn in this area.

Order No. 74-5263, 295 pages.

ACADEMIC ACHIEVEMENT, BICULTURAL ATTITUDES AND SELF-CONCEPTS OF PUPILS IN BILINGUAL AND NON-BILINGUAL PROGRAMS

Carmen Elena Rivera, Ph.D.
Fordham University, 1973

Mentor: John M. Skalski

This study sought to ascertain and compare the academic achievement, the bicultural attitudes and self-concepts of third and fifth grade public elementary Hispanic and non-Hispanic pupils in a bilingual school and two non-bilingual schools in Community School District 12 of the Board of Education of the City of New York in 1972. Academic achievement only in English and Spanish reading and mathematics, Anglo-Puerto Rican cross-cultural attitudes, and self-concepts with regard to school, social relationships, physical development, home life and situations were assessed in this investigation. The investigation attempted to determine: (1) if instruction in Spanish contributed to improved reading scores in English as well as in developing reading ability in Spanish for Hispanic bilingual pupils; (2) if instruction in Spanish interfered with the ability of English (monolingual) speaking pupils to read in English and contributed to a decrease in his reading grade; (3) whether a bilingual and bicultural program contributed

to the development of a more positive outlook among pupils towards their own culture as well as an understanding of other cultures; and (4) if pupils in the experimental group exhibited a more positive self-image than pupils in the control group.

The subjects for this study were 124 Hispanic and 72 non-Hispanic pupils who attended a bilingual school in which bilingual education in English and Spanish were offered. The control group consisted of 100 Hispanic and 94 non-Hispanic pupils who attended one of two non-bilingual schools similar to the bilingual school in pupil composition and organization, but where the curriculum was taught in the English language.

The measuring instruments administered to the pupils were the *Metropolitan Achievement Tests in Reading and Mathematics* and the *Inter-American Reading Test* (Spanish version) to assess growth in reading and mathematics, the *Cross-Cultural Attitude Inventory* to evaluate pupil reactions to Puerto Rican and Anglo cultural items and the *FACES Scale* to assess their growth in the self-concept. The statistical techniques employed in this study were means, standard deviations, two-way classification analyses of variance, Pearson Product-moment coefficients of correlation, and point-biserial correlation coefficients.

On the basis of the findings of this study, it was concluded that:

1. The bilingual and bicultural program of instruction in community school 211 in New York City benefited the Hispanic child whose steady academic progression was comparable to that of the non-Hispanic.
2. The full impact of a bilingual program of instruction could not be immediately observed since time was a factor to be considered before an increase in reading achievement of greater magnitude could be observed.
3. The non-Hispanic in the experimental school demonstrated a decided potential to perform at or above the level of the non-Hispanic child in the control group.
4. Non-Hispanic children would suffer no loss of basic skills in their own language by being exposed to a program of second language instruction at an early age.
5. A residue of an undetected language handicap was at the base of the difference in scores between the Hispanic of the experimental group and the non-Hispanic of the control group.
6. The time devoted to the study of a second language was not affecting the growth in mathematics skills and understanding of concepts of the non-Hispanic pupils in the experimental group.
7. A transfer of training was occurring among the Hispanic subjects of the experimental pupil population whose observable progression in reading at the fifth grade level could be attributed to their greater understanding and command of the reading scores.
8. Although a bilingual and bicultural program would tend to be of immediate

benefit to the Hispanic population, its potential for developing greater and more positive cultural awareness between the two significant ethnic groups of the school population could not be minimized.

9. A bilingual and bicultural atmosphere generated greater feelings of acceptance for the Hispanic child and a consequent greater feeling of self-worth.

10. A bilingual and bicultural atmosphere might possibly influence the evolving of more positive feelings of self-worth among all its pupil participants.

Order No. 73-26,729, 194 pages.

A STUDY OF THE EFFECT OF BILINGUALISM ON SCHOLASTIC APTITUDE OF SPANISH-SPEAKING STUDENTS IN SELECTED BINATIONAL AMERICAN SPONSORED OVERSEAS SCHOOLS OF COLOMBIA

Anderson, W. Cary, Ed.D.

University of Northern Colorado, 1974

This study was an attempt to determine whether or not Spanish-speaking, Colombian students' scholastic ability is affected by studying in bilingual, binational American sponsored overseas schools in Cartagena and Barranquilla, Colombia.

One hundred twenty students; fifteen boys and fifteen girls from both the eighth and eleventh grades at binational schools, primary bilingual subjects, and the same number from two private national schools, secondary monolingual subjects; were used for the study.

The groups were equal in group size, grade level, sex and age. All were from the upper or upper middle socio-economic class. The primary subjects had attended binational schools for five years and ninety per cent had since pre-kindergarten. The secondary subjects had attended only Colombian national schools. They and the primary Barranquilla subjects lived in the same residential area. The only observable difference in the groups was that the primary subjects received eighty per cent of their instruction in English and the secondary subjects received all instruction in Spanish.

Differential Aptitude Tests-Form B (DAT), Verbal Reasoning (VR) and Numerical Ability (NA), and the DAT-Form A Spanish version, *Tests de Aptitud Diferencial-Forma A* (TDAD), Razonamiento Verbal (RV) and Habilidad Numerica (HN), were administered to the bilingual subjects and the TDAD to the monolingual subjects.

The one sample *t*-test was used to test for significant difference between the primary subjects' DAT means—VR and NA—and the standardized means.

The *t*-test for dependent samples was used to test for significant difference between the primary subjects' DAT means—NA and VR—paired with their TDAD means.

The *t*-test for independent samples was used to test for significant difference between the bilingual subjects' TDAD means compared with the monolingual subjects' TDAD means.

The .05 level of significance was established to test the *t*-scores for significance.

The analysis showed the standardized means and the eighth grade boys' and girls' VR and NA and the eleventh grade girls' VR means to be significantly different. The eleventh grade boys' NA and VR and the eleventh grade girls' NA means were equal to the DAT standardized means.

On analyzing the bilingual subjects' TDAD and DAT means, the HN for the total group; eleventh grade group, girls, and boys; and the eighth grade boys and the RV for the same groups plus the eighth grade group and girls were significantly higher than the NA and VR. The HN and NA mean scores for the last two groups were the same.

When the bilingual and monolingual groups' TDAD mean scores were compared, the eighth and eleventh grade bilingual and monolingual boys received the same mean score on the HN. The two eleventh grade female groups obtained the same mean scores on the RV. All other mean scores were significantly higher for the bilingual subjects.

On the basis of the analysis, it must be concluded that the bilingual subjects' scholastic aptitude improved significantly by attending binational schools; that their scholastic aptitude by eleventh grade is, in three of four cases, equal to DAT standardized means; that much better scholastic aptitude scores can be obtained for native Spanish-speaking students studying in English by using the TDAD, especially for eighth graders. By using both DAT and TDAD scores for evaluation, bilinguals will show significantly higher scholastic aptitude than monolingual English or Spanish-speaking students.

Inference was also made that when unfavorable cultural identification and socio-economic status and discrimination are removed, and possibly if they are present, instructional language does not detrimentally affect Spanish-heritage students studying in English but may enhance their aptitude scores.

Order No. 75-5395, 123 pages.

A METHODOLOGICAL STUDY OF COMPOUND AND COORDINATE BILINGUALISM

McDowell, Earl Ernest, Ph.D.

The University of Nebraska - Lincoln, 1974

Advisers: John A. Boyd and John L. Petelle

The purpose of this methodological study was to determine if unidimensional semantic differential scores, TOEFL scores in English and Spanish, SAT scores in English and Spanish, and MAT scores in English and Spanish might be used to classify compound and coordinate bilinguals. In Chapter One the discussion of bilingualism, theory of compound and coordinate bilingualism, review of literature, methodology, and justification are presented. The review of literature indicated that few researchers have used reliable and valid instruments to determine degree of bilingualism. This study was an attempt to use reliable and valid standardized tests to classify bilinguals.

In Chapter Two the procedures are discussed. A Latin Square design of eight treatments was constructed to test the methodology. Eight groups of subjects from the University of Minnesota and eight groups of subjects from the University of Texas, Austin, completed the four sets of tests in English and in Spanish. The hypotheses were: (1) There will be no relationships among the combinations of semantic differential scores, TOEFL scores in English, SAT scores in English, and MAT scores in English of compound and coordinate bilinguals; (2) There will be no relationships among the combinations of semantic differential scores, TOEFL scores in Spanish, SAT scores in Spanish, and MAT scores in Spanish of compound and coordinate bilinguals; (3) When each variable is used to classify compound bilinguals, there will be no relationships between the combinations of TOEFL scores in English and Spanish, SAT scores in English and Spanish, and MAT scores in English and Spanish, and (4) when each variable is used to classify coordinate bilinguals, there will be significant relationships between the combinations of TOEFL scores in English and Spanish, SAT scores in English and Spanish, and MAT scores in English and Spanish. The results were analyzed by correlation coefficients. *Post hoc* analysis using Pearson product, point biserial, and multiple correlation coefficients also was completed.

In Chapters Three and Four the results, conclusions, discussion, and future research are presented. All correlations for Hypotheses I and II were significant at the .01 level. For Hypothesis II semantic differential scores and MAT English scores classified compound bilinguals. For Hypothesis IV semantic differential scores and MAT English and Spanish scores classified coordinate bilinguals. *Post hoc* analysis indicated that (1) background data classified bilinguals as

compound or coordinate, (2) subjects with compound backgrounds rated semantic differential scales significantly different than did coordinate bilinguals, (3) subjects with compound backgrounds scored significantly better on the three Spanish tests than did coordinate bilinguals, and (4) semantic differential scores and MAT Spanish scores were the best criterion measures.

To increase the reliability and validity of the instruments for future studies, the researcher suggests one use a more culturally oriented word to classify bilinguals, increase the number of items in each language on the MAT, and increase the number of years of experience in the second language. Several studies related to language and intercultural communication are proposed. One study attempts to discover whether compound or coordinate language teachers are more successful in increasing language proficiency of beginning Spanish students. A second study evaluates whether compound or coordinate bilinguals will be more effective communicators with Spanish speaking people. In addition, *ex post facto* research to determine whether compound or coordinate bilinguals are rated as better speakers by members of a Spanish speaking community and whether compound or coordinate bilinguals advance more rapidly in business and governmental positions is suggested.

Order No. 75-3438, 143 pages.

THE SPOKEN ENGLISH OF SPANISH-SPEAKING PUPILS IN A BILINGUAL AND MONOLINGUAL SCHOOL SETTING: AN ANALYSIS OF SYNTACTIC DEVELOPMENT

Ramirez, Arnulfo Gonzalez. Ph.D.
Stanford University, 1974

PURPOSE

The advent of bilingual schooling in the Southwest marks a potential means for preserving native Spanish language ability while, at the same time, allowing for the development of good skills in English. Advocates of bilingual education stand by the conviction that Spanish-speaking pupils schooled bilingually can do better than comparable Spanish-Speaking pupils schooled only in English.

The purpose of this study was (1) to describe the developmental trends in the control of spoken English grammatical constructions produced by Spanish-speaking Mexican-American schoolchildren learning English in the elementary

grades and on the basis of this description (2) to assess the comparative development of English structures between those pupils schooled bilingually in English and Spanish and those instructed only in English in a traditional monolingual school program.

The principal hypothesis tested was that there would be no significant difference between those Spanish-speaking pupils schooled bilingually and those schooled monolingually in the development of English grammatical constructions. If there should be any difference, pupils schooled bilingually would demonstrate greater syntactic development in their spoken English.

METHOD

The pupils under study consisted of 115 Mexican-American schoolchildren in grades K, 1, 2, and 3. The 58 bilingually-schooled pupils were matched with 57 pupils schooled monolingually. Transcripts were made of each pupil's oral responses to a short film. The transcribed language sample was then segmented into "T-Units," a syntactic measure developed by Hunt.

The effects of three independent variables (Treatment, Grade, and Sex) on the production and development of spoken English were assessed. In order to make a relative comparison of the production of different language constructions, the type of construction (correct or incorrect T-unit, explicit or implicit T-unit, etc.,) was included as a within-subject factor with repeated measures over subjects. Three separate ANOVA's were run with an equal number of subjects in each cell. The results of these three analyses were consistent for most of the 11 dependent measures based on the T-unit concept. Grade was not found to be a significant source of variance for 2 dependent measures, and the Sex factor was consistent for all the dependent measures except 2, in which boys outperformed girls.

After completing the omnibus F test, specific questions were then asked of the Treatment and Grade analysis by means of orthogonal contrast procedures. The first set of questions attempted to assess the general effect of bilingual and monolingual schooling on oral English development. The second set of questions attempted to study the production of different types of language constructions in order to provide some insights about the role of correctness, explicitness, and complexity in the acquisition of English by Spanish-speaking pupils.

RESULTS AND CONCLUSIONS

One of the most important findings of this study was the general positive effect bilingual schooling had on the development of the spoken English of these pupils. The bilingually-schooled pupils produced more language overall, and, when the language sample was segmented into T-units, they produced more

structurally complete T-units. On measures related to syntactic complexity defined in terms of the number and type (nominal, adverbial, and coordinating) of sentence-combining transformations used, the bilingually-schooled pupils' performance was superior to the monolingually-schooled pupils by grade 2.

For both groups, years in school did account for measurable differences in the use of certain English language constructions. The effect of Grade was significant for 8 of the 11 dependent measures. Overall, the pupils tended to produce more correct than incorrect T-units, more explicit (structurally complete) than implicit T-units, and more nominal sentence-combining transformations than adverbial and coordinating combined.

Order No. 74-27,089, 154 pages.

A COMPARISON OF THE WRITTEN AND ORAL ENGLISH SYNTAX OF MEXICAN AMERICAN BILINGUAL AND ANGLO AMERICAN MONOLINGUAL FOURTH AND NINTH GRADE STUDENTS. (LAS VEGAS, NEW MEXICO)

Rodrigues, Raymond, I., Ph.D.
The University of New Mexico, 1974

The major problem investigated by this study was whether or not Mexican American bilingual fourth and ninth grade students represent the same language population in their English syntactic usage as do Anglo American fourth and ninth grade students in Las Vegas, New Mexico. The first hypothesis specified that the distributions of the following variables of the bilingual and monolingual groups were not significantly different in the oral and written modes: average number of words per clause; average number of clauses per T-unit; average number of words per T-unit; total "sentence-embedding" transformations and "sentence-embedding" transformations in headed nominal, non-headed nominal, adverbial, and coordinated structures; and syntactic and morphological rule variations per 100 words. The second hypothesis specified that there would be an increase in the syntactic maturity measures from grade four to grade nine and that there would be no difference between bilingual and monolingual groups in the amount of increase. The third hypothesis specified that there would be no significant differences between the oral and written sample of each study group in the variables specified in the first hypothesis.

Twenty-one fourth grade bilingual, sixteen fourth grade monolingual, nineteen ninth grade bilingual, and nineteen ninth grade monolingual subjects were taped

in individual interviews, and their written in-class free-writings were collected to provide the basic data. The written and oral productions were divided into T-units as the basis for analysis. The data were subjected to the Kolmogorov-Smirnov two-sample test to test for significant differences in the variables according to distribution, skewness, and central tendency.

Only two significant differences were found. First, the average clause length of ninth grade bilingual subjects was shorter than that of ninth grade monolingual subjects in the written mode. Second, the average T-unit length of fourth grade monolingual subjects was longer in the oral mode than in the written mode. Also, the syntactic maturity measures tended to increase in size from fourth to ninth grade slightly more for monolingual than for bilinguals.

It was concluded that the bilingual subjects represent the same language population as the monolingual subjects in their English syntactic usage, except in average clause length in the written mode in ninth grade. Since the bilingual subjects can produce the same structures as the monolingual subjects, it was suggested that differences between groups can be diminished by providing appropriate language experiences in class.

Order No. 75-5908, 224 pages.

MONOLINGUAL VERSUS BILINGUAL CHILDREN'S PERFORMANCES IN REPETITION OF BASE AND TRANSFORMATIONAL SENTENCES

Walters-Mikawa, Terralynn Grace, Ph.D.
University of Utah, 1974

Chairman: Merlin J. Mechem

The purpose of the study was to determine whether the linguistic performance of monolingual children is superior to that of bilingual children in repetition of embedded *base*, embedded *transformational* sentences, or both. Each of 10 five- and six-year-old monolingual and 10 five- and six-year-old bilingual children were asked to repeat embedded sentences containing base and transformational structures.

Based upon correct repetitions of and modifications of embedded sentences it appears that differences in performances of bilingual and monolingual children were not statistically significant for either accurate repetitions of or modifications of base and transformational structures. Trends clearly favored the performances of the monolingual group. Significant *t*-scores for *base* versus *transformational* sentence repetition for each group provides additional support for

the suggestion that five- and six-year-old children are able to repeat *base* sentences with more proficiency than *transformational* sentences.

Order No. 74-23,104, 58 pages.

COMPARISON OF ACADEMIC ASPIRATIONS AND ACHIEVEMENT IN BILINGUAL VERSUS MONOLINGUAL CLASSROOMS

Alvarez, Juan M., Ph.D.

The University of Texas at Austin, 1975

Supervisor: Joe Frost

The primary purpose of this study was to determine if there was a differential effect on the academic achievement of 147 second-grade Mexican American students due to participation in bilingual and monolingual programs in two Austin public schools. Comparisons were made within each school and between the two schools. Reading aptitude in Spanish was also assessed. Furthermore, this study assessed and compared the attitudes and academic aspirations of the students in each program.

An analysis of variance was used to analyze four hypotheses related to the academic aspirations of the students. An analysis of covariance was used to analyze twenty hypotheses related to the students' academic achievement in English reading, mathematics, and Spanish reading. The .05 level of statistical significance was used as the minimum acceptable level for all differences of the means in all the hypotheses.

In Spanish reading achievement, students in the bilingual program scored significantly higher than those in the monolingual programs. No other significant statistical differences were found. It was concluded that there was no differential effect on academic achievement or academic attitudes and aspirations of the students in each program. Furthermore, it was concluded that using Spanish and English as mediums of instruction did not cause academic retardation or a low level of academic aspirations in the bilingual classes. It was also discovered that the bilingual classes, that used only half as much time in subject matter learning due to bilingual instruction, scored just as high as the monolingual classes in the study.

Recommendations were discussed in the study.

Order No. 75-16,629, 164 pages.

A COMPARISON OF READING VOCABULARY AND READING COMPREHENSION SKILLS BETWEEN BILINGUAL AND MONOLINGUAL CZECH-AMERICAN STUDENTS

Holick, Robert Joseph, Ph.D.
Texas A&M University, 1975

Co-Chairmen: Dr. Jack K. Campbell and
Dr. Walter F. Stenning

The study was designed to investigate whether reading achievement differed between bilingual and monolingual students of the fifth, sixth, and seventh grades in several Texas schools where the Czech-American culture is significant. It included seven communities in which 282 students were found to be of a Czech-American background and of this number, 63 were identified as being bilingual. Bilingualism was determined by the ability to answer structured questions presented in the Czech language. Responses could be in either Czech or English. The selected bilinguals and monolinguals were then compared in the factors of sex, chronological age, grade level, reading vocabulary scores, reading comprehension scores, total reading scores, socio-economic status, and intelligence scores. School records were inspected to determine the variables of sex, age, grade, and intelligence scores. To ascertain the level of the three reading variables and socio-economic status, two instruments were used: the *Cooperative Inter-American Reading Test* and the *Socio-Economic-Status Questionnaire*. These were administered during the school year of 1973-1974.

Analyses were performed upon the scores of demographic and reading variables for students in the selected categories in order to secure answers to the following five research questions:

(1) Is there a significant difference in vocabulary scores between the bilinguals and monolinguals? (2) Is there a significant difference in reading comprehension scores between the bilinguals and monolinguals? (3) Is there a significant difference in total reading scores between the bilinguals and monolinguals? (4) Is sex a significant factor in total reading scores of the bilingual and monolingual groups at the three grade levels in this study? (5) Is there a significant correlation between total reading achievement and socio-economic status?

An initial analysis revealed no significant differences between bilinguals and monolinguals in demographic and reading variables.

A multiple discriminate analysis technique was employed and revealed that significant differences existed between the males and females in the variables of grade, reading vocabulary scores, reading comprehension scores, total reading scores, and approached significance in intelligence scores. Therefore, a supplementary single classification analysis of variance was carried out separately for

males and females and revealed no significant differences with any of the variables for the male groups nor for the female groups.

In view of the findings revealed from the statistical analyses, the answers to the first three research questions were definitively in the negative. There were no significant differences in reading variables between the bilingual and monolingual groups.

Sex was determined to be a significant factor in regard to the reading variables under consideration. A significant difference existed between the male and female subjects of this study on all reading scales.

The answer to the last research question was in the affirmative. An intercorrelation matrix of the variables revealed that socio-economic-status was highly associated with students' reading ability. This degree of association was not affected by intelligence.

Three major conclusions were made as revealed by the findings: (1) bilinguals read as well as monolinguals, (2) females read better than males at these grade levels, and (3) students from a high socio-economic-level read better than students from a low socio-economic-level.

In regard to the last two variables, the findings are extensions of many previous studies in the areas of sex differences and socio-economic-status as they relate to reading ability. The implications of the research suggest the need for additional research dealing with Czech-American bilingualism.

The list of references contain approximately 100 entries and date from 1918 to present.

Order No. 76-3645, 229 pages.

AN INVESTIGATION OF THE USE OR NON-USE OF FORMAL ENGLISH-AS-SECOND LANGUAGE (ESL) TRAIN- ING ON THE ACQUISITION OF ENGLISH BY SPANISH SPEAKING KINDERGARTEN CHILDREN IN TRADITIONAL AND BILINGUAL CLASSROOMS

Legarreta-Marcaida, Dorothy, Ph.D.
University of California, Berkeley, 1975

This longitudinal study investigated the facilitative effects of four different program models on both acquisition of English and maintenance of Spanish by native Spanish-speaking kindergarten children. The four program models, or treatments, were:

(1) Traditional or regular kindergarten, taught in English with no formal English-as-Second Language (ESL) training; (2) Traditional, with ESL daily; (3)

Bilingual kindergarten, taught in English and Spanish, with no ESL; (4) Bilingual kindergarten, with ESL daily.

The treatments (2) and (4) exemplify the behaviorist (rabit) theory of language acquisition; treatments (1) and (3) exemplify a generative (innatist) view of language acquisition.

Criterion language measures were administered on a pre- and post-test basis, in both Spanish and English, by peer testers. These measures included oral comprehension, vocabulary for home, school, and street, and oral production. An instrument to measure communicative competence, designed by the investigator, was also given. Children were equated for cognitive ability and Spanish dominance.

The two groups (3 and 4) taught bilingually were further divided on the basis of balanced or unbalanced (50-50) input of Spanish and English by teaching staff. This was established by interaction analysis data gathered in these classrooms. The four treatments became five:

1. Traditional, no ESL
2. Traditional, with ESL
- 3A. Bilingual, unbalanced language, no ESL
- 3B. Bilingual, balanced language, no ESL
4. Bilingual, unbalanced, with ESL

Balanced language use occurred in the bilingual classroom using an "alternate days" approach; the unbalanced language use classrooms used the "concurrent translation" approach.

Using multivariate analysis of variance on gain scores, it appears that Treatment 3B, Bilingual with balanced language, and no ESL, produced significantly greater gains in communicative competence in Spanish as well as English, though to a lesser extent, than did the other treatments. Treatment 3B also produced greater gains in oral comprehension of English, than did the treatments which included daily ESL training (Groups 2 and 4). There were also significant differences among treatment groups on the vocabulary measures in English and Spanish, for the home, again with Bilingual treatment superior to Traditional treatment. No significant differences appeared on the oral production measures in either Spanish or English.

The instrument developed to measure communicative competence, particularly the Spanish version, discriminated better among the treatments than did the measures of oral comprehension and production generally used in research on child language acquisition.

This study indicates that the balanced Bilingual treatment with no formal ESL training enhances communicative competence in Spanish and English while facilitating comprehension of English, as well as vocabulary in both Spanish and English.

Order No. 76-15,279, 127 pages.

SPOKEN SPANISH OF MEXICAN AMERICAN CHILDREN: A MONOLINGUAL AND BILINGUAL SCHOOL PROGRAM

McKay, Maryann, Ph.D
Stanford University 1975

One of the main goals of bilingual education is to maintain and develop the mother tongue (i.e., Spanish in the case of the Mexican American in the Southwest). Yet, little has been done to see to what extent bilingual schooling is affecting the development of Spanish.

The purpose of this study was to test the effects of bilingual and monolingual schooling (Treatment) on the production of Spanish syntactic structures. The main hypothesis to be tested was that there was no significant difference in the development of Spanish syntactic structures between those children schooled bilingually and those children schooled monolingually in English. If such a difference existed, the children in the bilingual program should demonstrate greater syntactic development in their speech.

The study was conducted using ninety-six Mexican American children in two elementary schools in the San Francisco Bay area. All of the children were Spanish-dominant and spoke Spanish at home, but also spoke some English. One school had a bilingual program and half of the children attended it. They were matched with forty-eight children who attended the second school which was located nearby and taught the standard curriculum in English.

All the children viewed a short movie without sound and talked about it afterwards individually with an Interviewer. The interview was recorded and transcripts were made of the children's oral language production. An analysis of the transcripts was made based on the T-unit. (A T-unit is defined as one main clause plus any subordinate clause or nonclausal structure attached to it.)

In addition to the effects of Treatment, the effects of two other potential sources of variability (which were not central to this study, but which may affect language production) were studied; namely: Sex and Interviewer.

One of the most interesting findings of this investigation was that the children in the monolingual school produced more language and more structurally complex language than did the children in the bilingual program. When a mixed factorial ANOVA with treatment, Sex, Interviewer, and Grade as between-subject factors and repeated measures as a within-subject factor was run, it was found that monolingually-schooled children performed significantly better on those measures of complex language development such as *Complete T-unit*, *Complex T-unit*, *Dependent Clauses*, and *Adjective Clauses*. The bilingually-schooled children did not perform significantly better than their counterparts on any of the eleven dependent measures.

Individual differences on the Interviewers' ability to elicit language from

the children were statistically significant. The reason why they varied is difficult to explain. A careful examination of the transcripts does not reveal that Interviewers spoke differently from one interview to another.

In this study one dependent measure was significantly affected by Sex. Girls performed significantly better on the quantitative measure *Mean Number of Words per T-unit*.

The number of years in school was not significant for either group when looking at T-unit measures. However, when coordination and subordination were considered, growth over grade was apparent. The number of subordinate clauses increased, with adverbial clauses of time and reason evincing the most growth. The use of the coordinator *y* increased, thus indicating that children in succeeding years produce more sentences.

The most plausible interpretation of the findings is that Spanish is apparently a school subject to the children in the bilingual program. These children speak a dialect of Spanish at home, and yet, they come to school and are taught in standard Spanish and corrected if they do not use it. This seems to be causing their verbal fluency in Spanish to diminish.

Order No. 75-13,557, 139 pages.

THE EFFECTS OF AN ENGLISH PROGRAM AND A SPANISH/ENGLISH PROGRAM UPON CONCEPT DEVELOPMENT IN BILINGUAL CHILDREN

Gaines, Catherine Joan Dorsey, Ph.D.
Fordham University, 1976

Mentor: Lillian C. R. Restaino

The investigation sought to explore the following key hypotheses: (1) There will be no significant differences between the posttest scores for the children in the Spanish/English treatment group and children in the English treatment group across school centers; (2) There will be no significant differences between the posttest scores of boys and girls across the school centers; (3) There will be no significant differences in posttest scores between schools; (4) There will be no significant interaction between treatment and sex, across school centers; (5) There will be no significant differences between posttest scores of children in the English treatment group within each center; and (6) There will be no significant interaction between treatment and sex, within centers.

The purpose of this was to determine the effects of a bilingual literature-based concept development program on the acquisition of selected concepts of four- and five-year-old Spanish-speaking children. The research was based upon the principles of learning as put forth by Vance (1973). The research was conducted with the Jersey City Board of Education, Title I, summer prekindergarten program for four- and five-year-old disadvantaged children in Jersey City, New Jersey.

Seventy-five five-year-old children were enrolled in three prekindergarten centers in predominantly Spanish-speaking neighborhood schools in Jersey City, New Jersey. Spanish-speaking subjects were selected for participation in the program on the basis of an interview by the school principal and a bilingual Title I supervisor.

The children were members of families with an annual income of between \$3,000 and \$6,000, who were recruited for participation in the program by the principals of the schools in which the centers were located. There were 34 boys and 41 girls in the program, with a mean age of five years three months.

The program included three American born teachers, three Hispanic bilingual teachers, three Hispanic bilingual teacher assistants, three American teacher assistants and three Hispanic bilingual testers.

A pretest and a posttest was administered to both groups before and after the treatments. Two programs were constructed, one in Spanish/English and the other in English only. The programs were validated and both treatments and programs were pilot tested. The program ran for six weeks. A three-way classification analysis of variance on the posttest scores of the *Criterion-referenced Test* comparing treatment, sex, school, and their interaction was computed. The F ratio for treatment was 20.95, statistically significant at the .01 level. The null hypothesis that there would be no significant difference between the treatment groups was rejected, with the Spanish/English treatment group scoring significantly higher on the posttest than the English treatment. The F ratio for sex was 0.17 and the null hypothesis was accepted for this classification. There was no significant interaction between treatment and sex, with an F ratio of 3.71. The null hypothesis that there would be no significant interaction between treatment and sex was accepted.

A major conclusion derived from this study was that participation in the Spanish/English treatment produced significantly higher scores than the English treatment. It was apparent that sex appeared to have little effect on test scores with boys and girls scoring equally well.

In the results of the study, the development of a bilingual program with both Spanish-speaking and English-speaking teachers and assistants was most beneficial for the progress of the preschool Spanish-speaking youngster.

Order No. 76-25,770, 272 pages.

**SUBORDINATE AND SUPERORDINATE SCIENCE PROCESS
SKILLS: AN EXPERIMENT IN SCIENCE INSTRUCTION
USING THE ENGLISH AND SPANISH LANGUAGE WITH
FIFTH GRADE CHILDREN IN BILINGUAL SCHOOLS**

Juarez, John Reynaldo, Ph.D.
University of Washington, 1976

Chairman: Professor Roger C. Olstad

The purpose of this study was to determine if single language instruction was any more efficacious than bilingual instruction in a science context. A main concern of the study was to investigate the transfer of learning science content and process skills from one language to another. Additionally, information was sought on the students' reaction to bilingual science instruction.

The study involved 104 fifth grade children from four different schools in New Mexico that had had bilingual education for at least four years prior to the study. The students were randomly assigned to one of four treatment groups at each of the four schools. The four treatment groups were instructed in subordinate and superordinate units of science.

Prior to instruction all teachers were trained in the use and presentation of selected science units.

Three dependent measures were administered to the students. The first dependent measure sampled the student performance in initial science instruction. This measure was administered immediately after science instruction in the subordinate science activities, and each child took the individual competency measure. The student was required to score correctly on at least 80 percent of the measure to meet criterion. The second dependent measure sampled the student performance on the final set of science activities. This measure was also administered individually. The third dependent measure was administered to all students to measure student language preference and attitude toward science instruction.

Alpha was set at .05 to test the following hypotheses:

1. Bilingual children instructed in Spanish will learn science content and process skills as well as bilingual children instructed in English, but neither group will learn the content and process skills as well as students instructed bilingually in Spanish and English when science activities are presented in a subordinate and superordinate order. 2. Bilingual children receiving science instruction will demonstrate a preference for instruction in two languages (Spanish and English) rather than instruction in a single language.

The major finding of the study was that there was no significant difference

between treatment groups receiving instruction bilingually and those having single language instruction. The students receiving total instruction in English did no better on the dependent measures than those students receiving total instruction in Spanish, and students receiving instruction in both Spanish and English performed just as well as those instructed in a single language. The students showed a statistical preference for a bilingual environment as opposed to a monolingual environment. This was significant at the .05 level.

Order No. 76-17,524, 181 pages.

BILINGUALISM AND ACADEMIC ACHIEVEMENT: A COMPARATIVE STUDY OF SPANISH SURNAMED BILINGUAL, SPANISH SURNAMED MONOLINGUAL, AND NON-SPANISH SURNAMED STUDENTS

King, Francis Xavier, Ph.D.
United States International University, 1976

Chairman: Dr. Charles Case

THE PROBLEM

The study attempted to determine whether or not bilingualism among Mexican American students relates significantly to their performance in specified cognitive areas as measured by standardized tests administered in English at different stages in their development over an extended period of time.

METHOD

Hypotheses were as follows: (1) Bilingualism, in and of itself, has an adverse effect, with Mexican American students, on academic achievement; and (2) functioning in two distinct cultural environments in which one is in a subcultural relationship to the other has an adverse effect, with Mexican American students, on academic achievement.

Three research groups were formed—an experimental group and two control groups. The experimental group consisted of forty Spanish Surnamed bilinguals who had been in continuous attendance in the San Diego City Schools since grade one. The forty-three subjects in the primary control group represented a cross-section of Non-Spanish Surnamed monolingual students. Fifty-five

Spanish Surnamed English-speaking monolinguals comprised the secondary control group.

Research data consisted of raw scores from thirty-one standardized aptitude and achievement tests and subtests for each of the three research groups. The thirty-one sets of raw scores were assigned to eleven distinct knowledge and aptitude areas.

A computer program was developed to permit the analysis mean score relationships *within* each of the three groups. This program consisted of a t-test analysis of the difference between means *within* each group of all tests administered within a given testing area.

A further computer program was developed in order to determine the relationship of test scores at each grade level *between* research groups. This program consisted of a t-test analysis of the difference between means between groups for all thirty-one tests within the eleven testing areas.

RESULTS

A total of seventy-eight statistical determinations were made *within* research groups, or twenty-six determinations for each of the three groups. Analysis of data related to these seventy-eight statistical determinations produced not a single case in which a statistically significant difference existed.

A total of eighty-one statistical determinations were made *between* research groups. Analysis of data related to these eighty-one statistical determinations produced forty-nine cases in which a statistically significant difference existed. In comparing test results between the Spanish Surnamed Bilingual group and the Spanish Surnamed Monolingual group, a statistically significant difference in results was not found in a single case among the twenty-seven sets of test means compared. A comparison of the Non-Spanish Surnamed group with the Spanish Surnamed Bilingual group resulted in twenty-five statistically significant areas of difference and two areas where there were no significant differences. A corresponding comparison of the Non-Spanish Surnamed group with the Spanish Surnamed Monolingual group revealed that there were twenty-four areas in which statistically significant differences existed while no significant differences were discovered in three additional areas.

From the results of analysis of data between groups, the following conclusions were drawn: (1) Bilingualism, in and of itself, does *not* have an adverse effect with Mexican American students, on academic achievement and does not result in abnormal learning patterns; and (2) functioning in two distinct cultural environments, in which one is in a subcultural relationship to the other, does have an adverse effect, with Mexican American students, on academic achievement.

Order No. 76-20,969, 292 pages.

AN ANALYSIS OF ORAL LANGUAGE READINESS FOR READING OF SELECTED CANADIAN SECOND-GRADE STUDENTS IN FRENCH AND ENGLISH MONOLINGUAL AND BILINGUAL PROGRAMS

Lamarre, Joseph Leo Paul André, Ph.D.
University of Georgia, 1976

Supervisor: James A. Dinnan

The purpose of this study was to assess oral language readiness for reading of second grade students in French and English monolingual and bilingual programs. Test scores of the *Boehm Test of Basic Concepts* (BTBC) and the *Oral P/S Language Inventory* (P/S Inventory) were used as the criterion measures to test for significant differences.

The sample of the study consisted of 220 second grade students enrolled in French monolingual, English monolingual, immersion (90-10), and balanced (50-50) bilingual programs in St. Boniface, Manitoba and Montmagny, Quebec. Of the 220 subjects, 90 were male, 130 were female. The mean age of the subjects was 7 years, 4 months.

The P/S Inventory measured paradigmatic language behavior, and was administered individually to each subject; the BTBC measured reading ability, and was administered in a group to each class sampled. The predictor variables were language programs. Data collection was restricted to the first two weeks of the academic year 1975-1976.

An *F* test and a *t* test for correlated observations were used to compare the variances of the variables. All statistically significant results were converted from Tau to Rho statistics in order to determine the magnitude of the effect size of the variables under consideration.

Statistically significant differences, at the .01 level of confidence, were found in reading ability between: a) English and French monolingual program groups; b) French monolingual and combined (immersion and balanced) bilingual program groups; c) French monolingual and immersion program groups; d) English monolingual and balanced bilingual program groups; e) English and French components of bilingual program groups; and, f) the English component of immersion and balanced bilingual program groups. In each instance, the first program language group listed was favored.

In paradigmatic language responding, monolingual program groups differed significantly from each other, as did the English and French components of combined (immersion and balanced) bilingual program groups.

Conclusions reached indicate that there is a small relationship between monolingualism and bilingualism and the ability to respond paradigmatically on a free association test. Program language status accounts for 5 to 25 percent of the variance, clearly suggesting that program language is not a substantial variable worthy of continued investigation. The orientation of subjects sampled in this study is basically syntagmatic, suggesting that they are unable to comprehend or assimilate much of the foundation work that is presented for mastery in their typical school work. For successful communication, paradigmatic-type responses are needed to indicate the common-based referents existing within the general parameters of language.

Order No. 76-29,540, 93 pages.

TEACHER EDUCATION

THE EFFECT OF TEACHER SPANISH LANGUAGE FLUENCY UPON STUDENT ACHIEVEMENT IN A BILINGUAL SCIENCE PROGRAM

(Order No. 68-3813)

Philip Albert Bolger, Ph.D.
St. John's University, 1967

STATEMENT OF THE PROBLEM

This dissertation investigated the effects of two different types of bilingual science instructors upon student science achievement in a bilingual science program. It also considered the influence of student bilingual dominance upon science criterion scores used to determine program success and to compare teacher effectiveness. The study began in September, 1964, in sixteen selected junior high schools located in areas of New York City having large percentages of Hispanic-background students. In each school there was one seventh grade science class taught in Spanish and English, and one control class taught science in English. Nine of these schools were staffed by fluent Spanish-speaking science teachers; the seven other schools were staffed by Spanish-oriented teachers, that is, teachers familiar with but not fluent in the Spanish language. The study terminated at the end of seventh grade in June, 1965.

PROCEDURES

The investigation proceeded within the framework of the plan presented in the following overview. First, the major questions to be investigated were delimited and formulated in appropriate hypotheses. Second, a defined population of schools, teachers and students was selected. Third, students in each school were assigned randomly to experimental and control classes. Fourth, students were tested concerning initial science ability and student bilingual dominance. Fifth, the bilingual and conventional programs were implemented. Sixth, terminal status in student science achievement was tested. Seventh, the data were arranged and analyzed according to the groupings implied by each hypothesis. Eighth, each hypothesis was accepted or rejected and the questions to which they related were answered. Ninth, conclusions were drawn and recommendations were made.

CONCLUSIONS

The investigations pursued in this dissertation revealed the following: 1. Bilingual science education for seventh grade, junior high school students of Hispanic-background resulted in student science achievement significantly different from that of comparable students in the conventional program. 2. Analysis of results in terms of teacher type revealed that the bilingual science program obtained superior results only when conducted by fluent Spanish-speaking science teachers. 3. When bilingual science classes taught by the fluent teachers were compared to those bilingual classes taught by the non-fluent teachers the results favoring the classes taught by fluent teachers reinforced the conclusion stated in 2, above. 4. Although the students in control and experimental classes were comparable initially in terms of science ability, they were not comparable in the extent to which each group used Spanish outside school. 5. When previous findings were examined to determine if demonstrated group differences in bilingual dominance might be an uncontrolled factor which would have changed the result had it been controlled, the examination by analysis of covariance revealed that two results would have been changed. Omitting control of student bilingual dominance can affect the results.

RECOMMENDATIONS

The study's results lead to the following recommendations: 1. Bilingual science programs instituted for Hispanic-background children should only be staffed by fluent Spanish-speaking science teachers. 2. School systems considering bilingual science programs for Hispanic-background children should review local or state licensing requirements concerning teacher English-language

ability. Since most bilinguals are better in one language than another, it is extremely difficult to locate capable science teachers fluent in both English and Spanish. 3. Bilingual science programs will probably be most successful if conducted among Hispanic-background students who tend to use Spanish most frequently. Microfilm \$3.00; Xerography \$7.00. 147 pages.

THE DEVELOPMENT OF A RATIONALE FOR A PROGRAM TO PREPARE TEACHERS FOR SPANISH-SPEAKING CHILDREN IN THE BILINGUAL-BICULTURAL ELEMENTARY SCHOOL

Sister Marie André Walsh, IHM, Ph.D.
The University of Texas at Austin, 1971

Supervisor: Mark W. Seng

A major obstacle to the successful implementation of the Bilingual Education Act for local education agencies is the lack of teachers competent to teach in the bilingual school. A nation-wide survey conducted as part of the preparation for the dissertation revealed few existing teacher education programs that had as their major objective the preparation of teachers for Spanish-speaking children in the bilingual-bicultural elementary school. The dissertation is concerned primarily with the development of a rationale for a program to prepare teachers for Spanish-speaking children in the bilingual-bicultural elementary school. Secondly, a model program based upon this rationale is developed and described.

ORGANIZATION OF THE STUDY

The study is organized into four parts. Part I examines the profile of depressed educational achievement of Mexican Americans in the total Southwest and in Texas. It then investigates factors which appear to be the major causes of the education failure: (1) a long history of indifference toward the educational needs of the Mexican American on the part of the dominant Anglo society; (2) social factors attendant upon linguistic and cultural differences; (3) the "melting pot" theory that pervaded American education for so many years; (4) the inadequacy of teachers, of curriculum, and of facilities in the schools. Next it explores a possible solution to the problem: the bilingual school. It

examines in turn the rationale for bilingual education, the nature of the bilingual school, the need for teachers with special preparation, and the present status of programs to prepare teachers for bilingual schools.

Part II is concerned with the process of program development. The process involves three major steps: (1) an identification of the special competencies needed by the teacher in the bilingual school through a study of current literature and of current practice, and through the holding of a conference of bilingual educators; (2) the formulation of a rationale based upon the findings; (3) an examination of the nature of performance-based education and of the characteristics of ten performance-based teacher education models developed under government funding to determine the feasibility of adopting a performance-based approach in a small university.

Part III develops a program based upon the rationale. The program has three major components: linguistic, cultural, and professional.

Part IV points out the need for further research on bilingual methodology and on teacher behavior as it affects pupil learning; for preparation of bilingual instructional materials; for better understanding of the character, aspirations, and heritage of the Mexican American people; and for a study of selective admission criteria.

Order No. 72-19,690, 196 pages.

AN ANALYSIS OF BILINGUAL EDUCATION PROGRAMS (SPANISH AND ENGLISH) FOR PRE-ADOLESCENT CHILDREN IN SIX CONNECTICUT CITIES

Jessie Mary Godley Bradley, Ph.D.
The University of Connecticut, 1973

The purpose of the study was to determine the current status of Spanish and English bilingual-bicultural programs in six Connecticut cities. The problem offered six questions of interest. The first concerned the bilingual-bicultural preparation of supervisors and teachers working in existing programs. It would seem likely that personnel working in such programs would be bilingual and have State Certification in Bilingual Education.

The second question was in relationship to in-service needs for continuing education in terms of programs and materials as expressed by supervisors and teachers. Question three was concerned with the curriculum patterns in each city's program. Because of the rapidly growing Spanish-speaking school population, in the State of Connecticut, questions four, five and six were concerned

with existing pre-service bilingual-bicultural preparation programs in the State of Connecticut, the implementation of Public Act No. 432 (Connecticut 1971), and the financial support for such programs.

Questionnaires (Spanish and English), a rating scale and an interview schedule were developed so that the information could be collected, analyzed and interpreted. Trial surveys indicated that the instruments developed would obtain the desired results. A rating scale was developed to measure the preparation of teachers working in the programs. The eight supervisors were interviewed and the sixty-one teachers received covering letters and questionnaires pertinent to the study. They were asked information relevant to the operation of their programs. The fifteen teacher preparing institutions were asked to complete questionnaires in relationship to their present bilingual-bicultural preparation programs.

The following findings were reached:

1. Seventeen of the sixty-one teachers had some specialized bilingual-bicultural preparation and only four of the sixty-one teachers had certification in Bilingual Education. Two of the supervisors had no formal preparation in Spanish at the high school or college level.

2. In-service needs vital to continued bilingual-bicultural education were human development, curriculum development, Puerto Rican History, Culture and Folklore, testing, and the use of audio visual materials and equipment. Materials were needed in Spanish in the content areas of reading, mathematics, science, social studies, geography, health, music, Puerto Rican History, Culture and Folklore.

3. Team teaching was used in all six programs.

4. All programs had fifty percent federal funding and the remaining fifty percent funding source was state or local.

5. Only two teacher-preparing institutions reported that they offered degrees in Bilingual Education.

6. Public Act No. 432, Sections 1, 2, 3 (a through d), 4 and 5, have been implemented on a limited basis in the first year of its operation by comparison of the wording of the Act. Limitations reflected inadequate funding and bilingual-bicultural teacher preparation.

Order No. 73-24,390, 232 pages.

THE DEVELOPMENT OF A RATIONALE AND MODEL PROGRAM TO PREPARE TEACHERS FOR THE BILINGUAL BICULTURAL SECONDARY SCHOOL PROGRAMS

Carrillo, Federico Martinez, Ph.D.
The University of New Mexico, 1974

Much positive change has occurred in the preparation of teachers for bilingual-bicultural education programs. Several universities and colleges in New Mexico and throughout the nation have taken the initiative to implement some phases of teacher training in bilingual-bicultural education. The present philosophy of our universities of higher education is, however, to initiate, develop and promote teacher training programs for bilingual-bicultural education only for the elementary level of schooling. Little consideration or long-range planning to articulate bilingual-bicultural needs throughout the entire educational process has been affected. The nation-wide survey of bilingual-bicultural teacher training programs, conducted as part of the preparation of this study revealed that none of the programs were designed for teachers who would work on the secondary level.

As bilingual-bicultural education on the primary level matures, it is gradually beginning to reach into the intermediate and secondary level. In New Mexico, for example, a great number of schools now have bilingual-bicultural programs which have reached the intermediate grades. A 1972-1973 survey of the existing and proposed bilingual-bicultural programs in New Mexico revealed that approximately 46 schools would offer bilingual-bicultural education on the intermediate level during the 1973 academic year. Most of these programs have plans to expand as the students in them advance to junior and senior high grades. In addition two junior high schools and two senior high schools have already implemented some components of bilingual education in their curricula.

In view of the fact that bilingual-bicultural education seems inevitable on the secondary level in New Mexico, it is imperative to begin now to prepare for it. It should be apparent that the needs of primary and elementary students differ from those of junior and senior high school students. Therefore, the preparation programs, curriculum development, and teaching strategies which have evolved over the years for the lower grades will not be adequate for the implementation of successful secondary programs. If the problems which were encountered in the early stages of bilingual-bicultural education on the primary level are to be avoided, a comprehensive and effective program needs to be developed to prepare teachers for the forthcoming bilingual-bicultural secondary school programs.

The dissertation is concerned primarily with the development of a rationale and model program to prepare teachers for the bilingual-bicultural secondary school programs. The study is divided into four phases. Phase one examines the special educational needs of the Mexican American student. In order to assess the needs of the Mexican American student from the prospective of his current achievement and status both in and out of school, an extensive profile of the Mexican American in the Southwest is outlined: (a) an examination of the demographic features of the Mexican American population; (b) a review of statistics relative to the educational achievement of Mexican American students in the Southwest; and (c) an examination of the external restraints such as discrimination, segregation, and lack of educational and consequent socio-economic achievement of this group.

The second step in assessing the special educational needs of the Mexican American examines those educational practices and attitudes which have been the apparent causes of his failure to achieve in the past. A brief historical prospective of the educational attitudes toward the Mexican American traces how attitudes have changed throughout this century. An examination of how current attitudes toward diversity, Spanish language, and Mexican American culture have affected the Mexican American student provides specific information on the factors which have alienated Mexican Americans from the educational process. Information is also provided on those educational areas, such as teacher preparation, testing instruments, school facilities and community involvement, which have influenced the Mexican American student's involvement in relation to the educational process.

The second phase examines the bilingual-bicultural education program as a solution to the Mexican American student's problems. It examines the rationale given for bilingual education and provides a look at the general scope of the definition of bilingual-bicultural education. An examination is made of the actual practices in bilingual-bicultural education programs; the way these programs can be integrated into the regular curriculum on the secondary level; and a brief review of the kinds of preparation offered for bilingual-bicultural education teachers in institutions of higher learning.

Phase three of the study analyzes the opinions of a wide range of persons on the skills and competencies needed by teachers to provide successful educational experiences for Mexican American and other students in bilingual-bicultural education programs. A number of studies were conducted simultaneously to collect a wide variety of opinions on priorities in teacher preparation for bilingual-bicultural education:

1. An extensive review of current literature on teacher preparation in bilingual-bicultural education.
2. The survey of current bilingual-bicultural teacher preparation programs

to determine its priorities in terms of numbers and types of courses offered in various subject areas.

3. A number of bilingual-bicultural education related conferences was attended by the author, and the consensus of conference participants was collected and analyzed to determine their priorities in bilingual-bicultural teacher education.

4. An extensive circulated questionnaire prepared by the Institute for Cultural Pluralism at San Diego State University to solicit specific competencies considered essential for bilingual-bicultural education teachers from a wide range of community and educational interests was collected and analyzed to determine the priorities in teacher education of its respondents.

The fourth phase of the study presents a model undergraduate program in bilingual-bicultural education for the secondary level, based on a composite of the information gained in the previous three phases. The description of the model program includes a rationale; the general objectives of the program; specific objectives and minimum criteria for students in the program; a general description of the program, suggested course work and course descriptions.

Order No. 75-5886, 213 pages.

A COMPARISON OF THE CLASSROOM INTERACTION PATTERNS OF BILINGUAL EARLY CHILDHOOD TEACHERS

Townsend, Darryl Raymond, Ph.D.
The University of Texas at Austin, 1974

Supervisor: Joe L. Frost

PROBLEM

Despite the extensive work done with interaction analysis, and despite the progress of bilingual education during the seventies, few studies have attempted to describe instructional behavior in a bilingual classroom through the use of an observation instrument. The purposes of this study were as follows: (1) To determine the consistency of the interaction patterns of bilingual early childhood teachers while teaching in Spanish and English; (2) to compare the consistency of interaction patterns for males and females, for teachers and assistant teachers, and for those working with four-year-old children and those working with three-year-olds.

PROCEDURE

Sixteen teachers and fourteen assistant teachers from the José A. Cárdenas Early Childhood Center in San Antonio, Texas served as subjects. Two lessons were tape recorded in each language for each of the 30 participants. The interaction was coded from the tapes using the *System for Coding Interaction with Multiple Phases* (SCIMP), a system developed by the author. After determining the percentage of each lesson devoted to each category, an average percentage was computed for each category for English lessons, and an average for each category was determined for Spanish lessons. An analysis of variance with a repeated measures design was used to determine significant differences between the English and Spanish means for each of the variables.

FINDINGS

The study suggests that there were differences in the interaction patterns of bilingual teachers as they taught in Spanish and in English. The most significant findings were:

1. Of the 24 variables tested, 12 showed mean differences at significance levels ranging from .10 to .001. These differences included more questioning in Spanish, more praising in English, more rejecting of student answers in Spanish, and more directions given during English lessons.

2. The Indirect/Direct ratios in the two languages were higher for teachers than for assistant teachers and higher in Spanish for all instructors than in English.

3. There was a greater percentage of student response recorded during lessons taught in Spanish, but a greater percentage of student-initiated behavior was recorded during English lessons.

4. There were significant differences between the two languages in sequences related to reinforcement. The sequence involving a student response followed by teacher acceptance occurred more often in Spanish. The sequence of a student response followed by teacher praise occurred more often in English.

5. There was a greater tendency for all instructors to use English words while teaching in Spanish than to use Spanish words during English lessons, especially among the assistant teachers.

6. No significant differences were revealed when comparing the interaction patterns of males and females or teachers of different age levels. The comparison between teachers and assistant teachers, however, produced six significant differences including more student response for teachers, more "teacher talk" (lecture-type behavior) for assistant teachers, and higher Indirect/Direct ratios for teachers.

Order No. 74-14,775, 177 pages.

A COMPARISON OF THE NONVERBAL COMMUNICATION PATTERNS OF BILINGUAL EARLY CHILDHOOD TEACHERS

Zamora, Gloria Lu Jean Rodríguez, Ph.D.
The University of Texas at Austin, 1974

Supervisor: Joe L. Frost

PROBLEM

Many studies have been conducted which have analyzed teacher-pupil interactions and many instruments have been developed for this purpose, but the nonverbal behaviors of teachers have been, for the most part, ignored. No studies have been found that attempted to compare the nonverbal behaviors of teachers in a bilingual (Spanish-English) program through the use of an observation instrument. The purposes of this study were: (1) to compare the nonverbal communication patterns of bilingual early childhood teachers while teaching in Spanish and English; and (2) to compare the nonverbal communication patterns for teachers and assistant teachers, for age categories, for socioeconomic status, for years of teaching experience in bilingual programs and for preferred language of instruction.

PROCEDURE

Eleven teachers and fifteen assistant teachers at the Dr. José Angel Cárdenas Early Childhood Education Center in San Antonio, Texas, served as the subjects. The nonverbal behaviors of each subject were observed and tallied during four, ten-minute lessons—two lessons in each language.

The instrument used for coding was Phase III, Affective Behaviors, of Townsend's (1973) *System for Coding Interaction with Multiple Phases* (SCIMP). Some modifications were made by the investigator in order to make the instrument more valid and reliable. The average percentage of nonverbal behavior demonstrated in each category in each language was obtained. An analysis of variance with repeated measures design was used to determine significant differences.

FINDINGS

1. The comparison between teachers and teacher assistants produced five statistically significant differences, including more use of combined positive nonverbal behaviors by teachers and more use of combined negative nonverbal behaviors by teacher assistants.

2. The comparison of subjects with "more" and "less" years teaching experience in bilingual programs produced two statistically significant differences. Teachers with more teaching experience demonstrated significantly more use of "positive touch" and significantly less use of "void" behaviors.

3. The comparison of subjects by age and by preferred language of instruction produced no statistically significant differences.

4. None of the four trial results (English and Spanish Language of Instruction) produced statistically significant differences.

Order No. 75-4487, 230 pages.

A STUDY OF COMPETENCY BEHAVIORS FOR ELEMENTARY TEACHERS IN BILINGUAL ENVIRONMENTS

Castillo, Max Spencer, Ed.D.
University of Houston, 1975

The problem of this study was to determine from a list of competencies (utilizing a rating questionnaire) which competencies were perceived as essential skills for the preparation of bilingual teachers. Additionally, the study answered the following questions: (a) How did two regional groups of teachers working in bilingual programs rate the 67 competencies? (b) How did the selected group of bilingual authorities rate the same set of 67 competencies? (c) What were the similarities and differences in the ratings of competencies among the teacher groups and the bilingual authorities? and (d) Which competencies emerged that could serve as a framework for the development of bilingual teacher preparation programs?

The study was based on a sample drawn from two regional groups of bilingual elementary teachers in the State of Texas; of these, 83 were from the Valley area and 75 were from Houston. Samples drawn from each of the teacher groups were computed through the application of the NEA Small Sample Formula (1960). A group of 70 bilingual authorities from throughout the United States, including Texas, also participated.

Data were generated from respondents' ratings to a set of 67 competencies on an author constructed rating instrument. A total of 228 usable questionnaires were received and subjected to data processing and statistical analysis. The statistical tool employed to analyze the data was Chi-Square. The Chi1108—Statistical Package for the Social Sciences (SPSS) Computer Program at the University of Houston was utilized for data analysis. This statistical treatment answered the questions posited for the investigation and included percentages,

frequency of responses, and Chi-Square values. Significance for each competency was determined at the .05 and .01 alpha levels.

An examination of the results of the study indicated that although significant differences were found on 30 competencies descriptive analysis revealed that on the total (67) competencies, respondents considered them either essential or desirable skills for training bilingual elementary teachers.

One major question posed in the study centered on whether a set of competencies unique for training bilingual teachers would emerge that could serve as a framework for the design of bilingual teacher preparation program. The question, answered in the affirmative, revealed that while differences were found between the sampled groups in their ratings to the competencies, most of the differences were attributed to disagreements as to whether the skills were Essential or Desirable. Ratings on the "Not Desirable Nor Essential" Scale were negligible and not significant. Therefore it was concluded that in terms of importance, the 67 competency items were perceived as necessary skills for preparing bilingual teachers.

Order No. 76-13,566, 302 pages.

BILINGUAL/BICULTURAL EDUCATION FOR THE SPANISH SPEAKING STUDENTS IN MASSACHUSETTS: AN ANALYSIS OF PERCEIVED DIMENSIONS OF AN IDEAL BICULTURAL TEACHER

McCrossan, Linda V., Ed.D.
University of Massachusetts, 1975

Director: Dr. Horace B. Reed

This study focused on the generation and analysis of the operationalization of the goal "ideal bicultural elementary teacher" by selected Hispanic and Anglo American teachers and by some professionals in bilingual/bicultural education.

The perceptions of the respondents in the study were generated by the Operationalization of Fuzzy Concepts Strategy (OFC), a systematic set of procedures designed to simplify vague, general goals. These perceptions (dimensions) were then analyzed to determine whether or not a set of commonalities existed within the data.

In line with the four objectives of the study: (1) Four hundred seventy-two dimensions were elicited from the teacher respondents and seventy dimensions were elicited from the professional respondents; (2) it was determined that

broad, general themes, denoted as categories, existed and that differences in the perceptions of the Hispanic and Anglo American teachers existed within these categories; (3) it was also determined that with modifications, the OFC Strategy be considered a viable technique for use with bilingual/bicultural populations; (4) recommendations were posited to more fully investigate the issue of Hispanic and Anglo American teacher competencies in relation to the maintenance and transitional approach to bilingual/bicultural education. Additional research was suggested in the definition of biculturalism in an educational setting and in the cognitive styles of Spanish-speaking children in Massachusetts. Five generative themes and sub-themes were delineated for use as guidelines in the creation of teacher education programs, state certification and program guidelines.

The six categories used with the teacher data were:

- Language and Culture of the Child
- Instructional Processes and Methodology
- Interpersonal Relationship Between Teacher/Students
 - Including Student Goals
- General Professional and Personality Characteristics
- Interpersonal Relationship Between Teacher/Others
- School/Class as an Institution/Environment

Apparent disagreement exists between the Hispanic and Anglo American teachers in the study about the importance of several clusters of dimensions:

The Hispanic teachers in this study stress "knowledge/understanding of the language and culture of the child" more frequently than do the Anglo American teachers in this study (Category I).

The Hispanic teachers in this study stress the "maintenance of the culture of the child," a cluster which the Anglo American teachers in this study barely mention (Category I).

The Anglo American teachers in this study are relatively concerned about discipline, a feature never mentioned by the Hispanic teachers in this study (Category ii).

The Hispanic teachers in this study place their greatest emphasis on "sensitivity to students" while the Anglo American teachers appear to be only slightly concerned about this cluster of dimensions (Category III).

Order No. 76-5365, 246 pages.

BILINGUAL/BIDIALECTAL TEACHER EDUCATION MATERIALS: ATTITUDES TOWARDS NONSTANDARD SPANISH

Caragonne, Bobbie Kathryn Smith, Ph.D.
The University of Texas at Austin, 1976

Supervisors: Judith Lindfors and John Bordie

The need for teacher education materials for Spanish-English bilingual/bicultural programs, in particular, materials which examine attitudes toward non-standard Spanish, were explored and the procedure for the actual development of materials was outlined. Pedagogical and psychological implications of the differences between the variety of Spanish students speak, particularly Mexican American students, and the variety of Spanish found in their textbooks as well as possible differences between their dialect and that of their teachers were discussed.

The teaching of standard Spanish in formal situations and the acceptance of a child's own dialect in informal situations is advocated as a basis for the development of teacher education materials. An additional consideration was also made; that a student may not acquire productive competence in a standard dialect if it serves no function in his own environment. When it does not, receptive competence of the standard dialect may be all the student is willing to learn. A corollary to the advocacy of this position is that the teacher should be able to accept the student's nonstandard dialect.

With this position in mind, an extensive review of the literature was made. Bilingualism, Bidialectism, and diglossia as world-wide phenomena were discussed and it was shown that many of the situations which confront nonstandard Spanish speakers are shared by other groups throughout the world. Literature describing nonstandard American English was reviewed and examples of nonstandard forms used by whites, Blacks, Hispanos, and other ethnic groups were given. The literature which concerns itself with the relationship of attitudes toward a second language or dialect (and its speakers) and how these attitudes may affect one's ability to learn a new language variety was also reviewed. Again, examples were given from more than one language and country. Next, specific characteristics of the Spanish spoken in Texas, particularly San Antonio, were discussed and differences from standard Mexican Spanish were reviewed. Examples of grammatical, phonological, and lexical differences, including code-switching, were given.

Once the review of literature, including Spanish varieties in Texas, was completed, the process for development of modules was discussed. The assumptions on which the module development was based were stated and reasons were

given for the choice of a modular format. The stages of development for each of four modules were discussed and a step-by-step guide for defining objectives, stating learning activities, and evaluation followed. The actual production of modules was explained in narrative form through the use of a Program Evaluation Review Technique (PERT) and a Time/Activity Related Chart (TRAC). Emphasis was placed on the use of elements of good graphic design. Layout, type size, paper size, the use of illustrations and cartoons, the use of color, and various methods of binding were reviewed. An actual module, "Attitudes and Dialect Diversity" was developed utilizing this approach, while only the objectives for three other modules were described: "Causes of Dialect Diversity," "Dialect Addition/Dialect Deletion," and "Conditions and Strategies for Teaching a Second Dialect." Because of the nature of the study, only the first module was included as an example of materials which could be developed in the area of dialect differences.

Order No. 76-26,605, 255 pages.

QUESTIONING BEHAVIORS OF FIRST-GRADE BILINGUAL TEACHERS DURING READING INSTRUCTION: ENGLISH VERSUS SPANISH

Cámez, Gloria Irma, Ph.D.
The University of Texas at Austin, 1976

Supervisor: Dr. Joe L. Frost

The questioning strategies of primary bilingual (English/Spanish) teachers in a bilingual setting have been relatively unexplored. The major purposes of this study were as follows: 1. to compare the low- and high-cognitive levels of questions first-grade bilingual teachers pose during English and Spanish reading instruction; 2. to determine whether there is a significant relationship between the amount of teaching experience and the levels of questions asked by bilingual teachers.

Twenty-six first-grade bilingual teachers (25 female, 1 male), with varying degrees of teaching experience were tape-recorded as they taught two reading lessons in both English and Spanish. Recordings were analyzed according to the "Individual Cognitive Demand Schedule" (Lynch and Ames, 1971).

Comparisons of the mean percentages of low- and high-level questions used in English and in Spanish were made using "t" tests. No significant differences were found between the numbers of English and Spanish low-cognitive (memory

level) or the numbers of high-cognitive (abstract level) questions asked during reading instruction.

Pearson product-moment correlation coefficients were calculated to compare years of teaching experience (in both English and Spanish) with the questioning behaviors of teachers. No significant correlations were found.

No significant correlations or differences appeared in the testing of the hypotheses. Relatively consistent patterns were observed among teachers in both languages showing excessive usage of low-level questions. However, there was some suggestion that the greater number of years of teaching experience, the more likely a teacher was to use low-level questions. Further study of this phenomenon was suggested. First-grade bilingual teachers' attention needs to be drawn to certain types of questioning behaviors so that the attainment of these skills may occur through appropriate teacher education programs.

Order No. 77-11,514, 173 pages.

A TEXTBOOK FOR BILINGUAL TEACHERS

Hernández, Leodoro, Ed.D.
University of Northern Colorado, 1976

Very few people, including bilingual teachers, know what bilingual education is all about. Consequently, there is an overemphasis on the teaching of the cultural component in bilingual programs which produce Chicano singers, dancers, and painters, but it produces very few Chicano mathematicians and scientists. The Chicano student is simply not prepared to cope with these two abstract and analytical fields. Those Chicanos that succeed in college, graduate in the social sciences, which are surplus fields in the job market. However, they are the exceptions because the majority of the Chicano population experiences a low educational grade level and a high dropout rate.

The procedures and methods used for the research of this book include a review of the literature and empirical research. Much of what was written prior to the late 1960's was written by authors that did not know or understand the Chicano. Some Chicano authors who wrote about the Chicano had to conform to the terms used and known by the majority society of that time. Consequently, negative terms such as "culturally deprived", and "linguistically deprived" were used in reference to the Chicano. This book cites contemporary authors that have attempted to overcome the past discrepancies about the Chicano.

The results of my review of the literature and empirical research is the impetus for this book. The book contains five chapters that address the following:

Chapter one is an explanation of bilingual education, its historical background, the need for bilingual education, and in general what bilingual education is and is not.

Chapter two is a history of the Chicano. This chapter shows that the Chicano has *not* been taking a siesta for the past 200 years and now emerging as the Brown Giant. It shows that Chicano involvement in social action did not begin in the 1960's but has been continuous since the 1880's. It is also an explicit account of the Chicano's contributions to the United States including their involvement in every American war including the American Revolution.

Chapter three is an explanation of the language used by the Chicano. A language which includes "Pochismos, Pachucismos, and Mex-Tex." They are languages developed out of a dual culture and tradition and are used by millions of Chicanos residing in all parts of this nation.

Chapter four attempts to show who the Chicano really is. In this chapter there is information leading to the conclusion that the Chicano is an individual who is as diverse as any other ethnic group member and who does not fit one delineated matrix.

Chapter five contains tools that will assist school personnel in dealing more effectively with Chicano students. These tools are not a duplication of teacher training preparations already possessed. The teacher need not say or think, "Oh no, more of the same old junk that we have had in the past."

A conclusion derived from this book is that the teacher can become a more effective teacher. Teachers looking for reinforcement of their ingrained prejudices will grasp only that information which will meet their needs. The book is interrelated and it must be read from page one to the finish in order to better grasp the message. The reader would be remiss if he only reads parts of the book and then interprets the information out of context.

Order No. 77-11,061, 320 pages.

AN ANALYSIS OF CURRENT SELECT TEACHER TRAINING PROGRAMS IN BILINGUAL/BICULTURAL EDUCATION AND THE DEVELOPMENT OF NEW TEACHER TRAINING DESIGNS

Migdal, Sherry Resnik, Ed.D.
The American University, 1976

This study was initiated to find solutions to two problems. The first problem was to survey, compare and analyze teacher training data drawn from a selected

geographic sample of ten school districts which are funded under Title VII, Bilingual Education Act of 1965, as amended in 1967, and as amended in the Educational Amendments of 1974. Identical data was drawn from nine universities which are located in geographic proximity to the selected school districts.

The second problem was to design new models for the training of teachers. These models were based on the perceptions of school administrators, teachers and paraprofessionals in each surveyed district. The models were also based on the perceptions of teachers in training, professors and administrators of the universities which cooperate with the school districts by providing teacher training on both graduate and undergraduate levels.

Selection was made from a rough proportional representation of Spanish speaking geographic regions of the United States; the Mexican Americans in the southwest, the Puerto Ricans in the Northeast, the Cuban population in the southeast, and a mixed population, Cuban, Mexican American, Puerto Rican and other Spanish speakers from Latin American countries in the midwest.

The primary source of the data was a 30 item questionnaire which was sent to the entire population in the fall and winter of 1974. The questionnaire was organized as follows: 1) Demographic data, 2) Educational data, 3) Language Ability data, 4) Employment data, 5) Training data, 6) Attitudinal data about teacher qualities and field experiences.

The second section of the questionnaire determined what new models of teacher training in universities and in-service programs were needed. A composite of courses from catalogues and from schools were given to subjects to rank order in importance. These were arranged by geographic regions to reflect needs of different ethnic groupings.

Findings indicated that the population from the Southeast was distinctly different from the other three groups. This population was least supported by university training programs. The Puerto Rican population from the northeast was the most ambivalent. Since there was unusual citizenship status, enabling citizens to move freely from island to mainland and back again, language planning should be undertaken for both places. Administrative support was lacking in the northeast but teachers were very willing to continue in bilingual education.

The "Latino" of the midwest creates an ethnic subcultural pattern which presents a still unstable educational picture. Among the difficulties encountered was the poor ratio, 150 to 1, of Latino students to Latino teachers. More Latino children were in special education classes proportionate to the total school population. Findings from the southwest indicate that bilingual education, despite frustrations and problems, was most stable there. Teacher training has increased.

In a global assessment, funding made possible organized planning. The factors which determined overall trends are: 1) regional cultural difference, 2)

degrees of desired, imposed and achieved acculturation and assimilation, 3) educational levels achieved, and 4) money from state and Federal funds.

Although models for in-service and university training were written, the study concluded that training should be in both Spanish and English. Sociolinguistic surveys taken will help determine the language status of a community before bilingual programming is started. A coordinated multidimensional model for training was proposed and training programs were suggested for both languages. Models should be tested and evaluated after they have been initiated.

Order No. 77-7768, 290 pages.

A DESCRIPTIVE STUDY OF BILINGUAL TEACHER AIDES AND THEIR UTILIZATION IN ELEMENTARY SPANISH- ENGLISH BILINGUAL CLASSROOMS

Morales, Frank Joseph, Ph.D.
The University of New Mexico, 1976

The purpose of this study was to establish base-line data on bilingual teacher aides working in bilingual classrooms and how these aides assist classroom teachers in elementary Spanish-English bilingual/bicultural programs. The research conducted in this study addressed the following questions: (1) What duties, or roles, do bilingual teacher aides perform in bilingual classrooms? (2) Who are bilingual teacher aides? (3) Under what conditions or existing circumstances do bilingual teacher aides work? and (4) Do bilingual teacher aides receive preservice and in-service training and, if so, what is the nature of that training?

The study sample consisted of one hundred salaried Spanish-English bilingual teacher aides working in twenty school districts of northern California having Spanish-English bilingual/bicultural programs. Each aide completed a two-part questionnaire. Part I of the questionnaire consisted of questions pertaining to personal information about the aide and to various aspects of the aide's work and training. Part II consisted of a checklist of duties or roles performed by bilingual teacher aides working in bilingual classrooms. From the sample, seventy-five bilingual aides were randomly selected for follow-up interviews, which were conducted to gather additional information from the aides regarding their work. Interviews were also conducted with the classroom teachers who supervised the work of the seventy-five bilingual teacher aides interviewed.

The data collected in this study revealed the following general information:

1. Although the most frequently performed duty of the bilingual teacher aides

was the clerical duty of duplicating instructional materials, most duties frequently performed by the majority of aides were of a noninstructional or instructional nature. The bilingual/bicultural skills of the bilingual aides were not being fully utilized by the teachers in the bilingual classrooms. 2. The bilingual teacher aide is a young woman of Mexican American descent, between twenty-one to twenty-five years of age, who is a high school graduate and is in her first year of experience as a full-time instructional aide assisting one teacher in a graded primary classroom. 3. Most bilingual teacher aides were dissatisfied with the low salaries, which were based on hourly wages, paid by their school districts. The aides and teachers interviewed agreed that the aides' salaries did not take into consideration their bilingual/bicultural skills used in the bilingual classrooms. 4. Career ladder programs or teacher types of programs encouraging aides to continue their education are not available to most of the bilingual teacher aides to enhance their vertical mobility in terms of job classifications and pay scales. 5. Preservice and in-service training were not provided to all bilingual teacher aides. The majority who had in-service training programs considered them worthwhile. The aides wanted regularly scheduled, constructive and relevant training sessions that emphasize the improvement of skills, methods, and techniques needed in their work with children in the bilingual classrooms.

Order No. 77-6564, 210 pages.

A DESCRIPTIVE ANALYSIS OF METHODS AND MATERIALS FOR TEACHING BILINGUAL SPANISH-SPEAKING STUDENTS IN THE BILINGUAL PROGRAMS IN TEXAS PUBLIC SCHOOLS

Patterson, Marti Kay, Ed.D.
Baylor University, 1976

Major Professor: Dr. T. W. Rigby

PROBLEM

The purpose of this study was (1) to determine who holds primary teaching responsibility for bilingual biculturalism in the public schools; (2) to determine what methods and materials are being used in these programs to teach bilingual students; and (3) to obtain and interpret teacher opinions of the major curricular problems faced in instigating a bilingual program.

PROCEDURE

An analytical approach was used in this study. The data were gathered from 186 Texas public school districts with established instructional programs in bilingual-bicultural education. A questionnaire was used and reinforced by personal interviews. One hundred schools, or 53.7 percent, responded to the questionnaire sent to the director of bilingual-bicultural education in the 186 districts. The questionnaire was divided into the following three sections: (1) bilingual staffing; (2) methods and materials for teaching the bilingual student; and (3) recommendations for the improvement of bilingual education in Texas.

FINDINGS

The following conclusions are based on the data received from the one hundred participating school districts: The majority of the teachers presently teaching in bilingual classrooms in Texas are bilingual; that is, they speak both English and Spanish. Although the certification status of these teachers varies somewhat, most are certified either with full professional certification in bilingual-biculturalism or temporary certification in bilingual-biculturalism. Those temporarily certified appear to be working toward professional certification in bilingual-biculturalism through in-service education and special training institutes conducted primarily by area universities and education service centers.

The use of paraprofessionals in the bilingual classroom is a widespread policy; yet, less than one-half of the districts employing paraprofessionals have one paraprofessional per full-time teacher. Over ninety percent of the paraprofessionals are bilingual and they are being used consistently as full-time assistants to the teachers in the bilingual classrooms.

Teachers of bilingual education across Texas are planning for bilingual instruction through the use of pre-determined student objectives in all fourteen subject-matter and/or skill areas recommended by the Texas Education Agency with only two exceptions. Those two exceptions are physical education and health.

Fourteen subject-matter and/or skill areas of instruction are being taught in both English and Spanish by a majority of the districts involved in bilingual education for an approved length of time per week thereby meeting guidelines established by the bilingual component of the Texas Education Agency.

With respect to instructional methods, those used most frequently in bilingual education programs are those which center primarily around small groups or on individualized instruction rather than on the total bilingual class. Individualized instruction is the most frequently used single instructional approach by the bilingual teachers as indicated by their use of methods such as gaming, demonstrations, and systems of reinforcement.

A great variety of classroom activities are being used in the bilingual classrooms in Texas. Output-oriented activities such as story telling, problem-solving activities, experience charts, creative activities, and peer tutoring are the most frequently used activities by the teacher of bilingual education.

With respect to instructional materials, most teachers are using more teacher-made materials than commercially prepared materials and more audio materials than visual materials.

There is a weak compliance with the Texas Education Agency guidelines for bilingual-bicultural education with respect to student grouping and parent advisory committee involvement. In most of the bilingual programs, the students are grouped according to their dominant or home language and their instructional level. Standardized achievement and other teacher-made assessment procedures play a very insignificant role in assessing student eligibility for bilingual instruction. Parent involvement is not at an optimum level in the bilingual programs. Slightly more than one-half of the bilingual programs use parent advisory groups and the majority of those parents involved serve primarily as volunteer assistants in the bilingual classroom.

RECOMMENDATIONS

The following recommendations are based on data reported in this study:

1. That each local district with an established bilingual program engage actively in ongoing in-service education programs and special training institutes for the teachers and paraprofessionals involved in bilingual instruction. Sources available for teachers who are temporarily certified in bilingual-biculturalism are somewhat unavailable. Opportunities need to be established for these teachers to work toward full certification in bilingual-biculturalism.
2. That teachers might be encouraged to obtain a larger variety of both audio and visual and commercially prepared materials for introduction into the bilingual classroom in order to provide the richest learning environment possible for the language minority child.
3. That a greater effort be made to involve parents in determining policy and related aspects of the bilingual-bicultural program. Beside the fact that the Texas Education Agency suggests the use of an ethnic advisory committee in all bilingual programs, the parents present the most complete source of information concerning the child and they should be consulted frequently concerning his problems and his successes.

Order No. 77-1447, 106 pages.

MARKETABILITY OF BICULTURAL/BILINGUAL TEACHERS IN 1974 IN THE LOS ANGELES UNIFIED SCHOOL DISTRICT

Ramirez, Frank, Ph.D.
Claremont Graduate School, 1976

The purpose of this study was to analyze the marketability of bicultural/bilingual teachers at both the elementary and secondary level in the Los Angeles Unified School District. One of the basic questions that had to be answered was the question of need. Was there a need for teachers with a bilingual skill and how great was that need?

In order to determine need, the study examined the data collected from the Teacher Selection Section of the Los Angeles Unified School District on the recruitment, selection and placement of teachers for the District.

RECRUITMENT

The study found that the District's major recruitment thrust was to actively seek minority teachers, especially those with Spanish surnames. Recruiting teams were sent to the Southwest States of Arizona, Northern California, Colorado, New Mexico and Texas to recruit bilingual teachers. But despite this emphasis, the total recruitment of such teachers for the school year 1972-73 was 63 for approximately 175 positions.

The study found that the majority of the training programs at college and universities were training teachers for the wrong level and subject field—secondary Social Studies (Chicano Studies). The majority of these programs were not part of the regular teacher training programs which created placement difficulties for these students. Another major problem was the lack of accurate information concerning the current job market for teachers. Ironically, programs like "Operation Chicano Teachers" which were designed to help overcome the shortage of bilingual teachers, created instead an oversupply of these teachers at the secondary level in Chicano Studies.

SELECTION

The study examined the selection process of the District that every applicant has to pass through for employment. It found that about 20% of the bicultural/bilingual applicants were eliminated for failure to pass some portion of the selection process. It also found that 10-15% of the bilingual applicants failed the language fluency test and, therefore, could not be classified as a bilingual teacher. These two factors reduced the number of bilingual applicants by 30%.

PLACEMENT

The study revealed that the largest market for Spanish speaking teachers was at the elementary level. All the contracts given to bilingual teachers (Spanish speaking) in school years 1973-74 and 1974-75 were at the elementary level. There were no bilingual contracts awarded to the secondary level during this period, which eliminated all Chicano Study applicants.

What this study suggests is that those teachers who are now entering or who are going to enter the teaching market and who have a bilingual skill (Spanish speaking), will be entering an expanding market for their skills at the elementary level. These conditions ought to prevail for the next five years. For in spite of a teacher surplus, there exists a severe teacher shortage at the elementary level for those teachers who have the skills to implement a bilingual program.

Order No. 76-15,780, 98 pages.

INVESTIGATIONS BEYOND NORTH AMERICA

RESEARCH PROBLEMS IN BILINGUALISM, WITH SPECIAL REFERENCE TO SWITZERLAND

(Publication No. 3926)

Uriel Weinreich, Ph.D.
Columbia University, 1951

Part I, entitled "Approaches to Bilingualism," constitutes a critical review of the pertinent research literature in English, German, French, Danish, Swedish, Romansh, Russian, Polish, Yiddish, and Hebrew. First those studies are examined which treat bilingualism as a problem of the individual, e.g. those dealing with psychological and neurological theories of bilingualism, the terms in which bilingualism can be measured and characterized, and the effects of bilingualism on intelligence, character formation, etc. A number of special educational implications are also included. A second chapter surveys research on the sociology and the spatial aspects of bilingual groups; the question of "upper" and "lower" language is discussed and a new, differentiated definition of "prestige" is offered. The problems involved in the relationship of the unilingual bulk of a language community to its bilingual fringes are outlined. The

third chapter deals with the linguistic side of bilingualism, i.e. its effects on language usage. Differences in the amount of borrowing which occurs in various bilingual situations are examined in the light of structural and cultural resistance to borrowing. Finally, the effects of bilingualism on substratum formation and related processes are briefly surveyed. The overall conclusion of Part I is that the several approaches to bilingualism are complementary and that all are essential in comprehending a phenomenon of so many dimensions.

For the purpose of examining concrete bilingual situations from a number of points of view, quadrilingual Switzerland was chosen. Part II of the dissertation embodies the results of a year's research in that country on a fellowship from the American Council of Learned Societies. The study is developed according to the thesis that a full explanation of the direction of language influence, the extent of influence, and the domains of the linguistic structure most affected must include an analysis of the specific cultural and social setting in which the languages are in contact. First a number of *intralingual* contact situations are examined, particularly the question how the Schwyzertütsch language has been maintained against the pressure of Standard German. The relations between patois and Standard French; Common Lombardic, Ticino dialects, and Standard Italian; and between the several varieties of Standard Romansh are drawn upon for comparison. In the second chapter two *interlingual* contact cases are examined: a static French-German bilingual situation in the canton of Fribourg, in which the population has been bilingual for centuries, is contrasted with a dynamic bilingual situation in central Grisons, where, in a language shift, Romansh is being displaced by German. Each area is shown in the context of the larger language-border region to which it belongs. Language statistics are analyzed to demonstrate the insignificant fluctuations in the stable area and the unmistakable downward trend of Romansh in the region of the shift. A hitherto unpublished special language census for the Romansh area is utilized to illuminate the social processes of a language shift in detail. The prestige configurations in each pair of languages — balanced in the stable French-German area, unbalanced in the shifting Romansh-German one — are examined. It is shown how the topography of each area helps shape the fate of the languages. Lastly, those factors of each situation are reviewed which are relevant to interlingual influence, such as tolerance of speech errors by each culture and possibilities of habitualization of speech errors (i.e. language change). The difficulties of speakers of each language with the other tongue are outlined in the form of a *grammaire des fautes*, and examples are cited of errors actually committed by bilingual child informants in the course of recorded interviews with the author.

Details of the research material are presented in a number of appendices. A bibliography of 572 items concludes the dissertation.

Microfilm copy of complete manuscript of 568 pages, \$7.10. Enlargements 6" x 8", 10¢ per page.

A HYPOTHESIS FOR TEACHING URDU TO BILINGUAL CHILDREN IN PAKISTAN

(Order No. 66-12,674)

Zubeda Zafar Omer, Ed.D.
Indiana University, 1966

Chairman: Leo C. Fay

STATEMENT OF THE PROBLEM

The study is concerned with a review of methods of teaching English as a second language to elementary school children in the United States and with developing a hypothesis for teaching Urdu as a second language to elementary school children in Pakistan.

PROCEDURE

There are many arguments given for and against teaching a second language in the elementary grades, based on the effect of second language teaching on the mental, social and emotional development, school achievement, and the suitable optimum age of the child. Some important researches and articles dealing with these aspects were studied to draw some valid inferences for teaching Urdu to bilingual children in Pakistan.

In recent years structural linguistics has contributed much to the methods of teaching a second language. These methods were also studied. The author also consulted materials prepared in the United States for teaching Urdu as a foreign language to adults and also studied the material on linguistic analysis of Urdu. She also visited some of the experimental programs in the United States where large groups of children were taught English as a second language. She utilized all the above material to develop a hypothesis for teaching Urdu to elementary school children in Pakistan.

RECOMMENDATION

The majority of children in the elementary schools in Pakistan come from poor, impoverished backgrounds. A program which would develop bilingual readiness as well as new concepts is recommended. The teaching of Urdu as a second language should start in the first grade. The method of teaching should be audio-lingual with practice given in listening and speaking Urdu. The medium

required for the practice of listening and speaking skills should be such that it would provide language as well as enrichment experiences to the child.

The first step should be to teach pupils patterns of sounds through the concepts they already possess. Insistence should be on correct response which should be reinforced immediately. During the first six months the emphasis should be on teaching the sound system within a limited vocabulary. It is suggested that for preliminary work the words which are common in all languages may be used. A suggested method for teaching the sound system is to show how the word is pronounced by demonstrating how to articulate it. If there are special difficult spots they should be isolated and given practice. The method commonly used is repetition and drill, but this can be made interesting by a number of other suggested activities.

The teaching of the sound system goes along with the teaching of the patterns of the language. The kind of pattern practices suggested are repetition, transformation, replacement, and rejoinders. *The Curriculum for Primary Schools in Pakistan*, lists a number of topics in social studies and general science for first and second grades; it is recommended that these topics may be utilized in developing language patterns.

Once the child has acquired a sufficient mastery of language reading and writing may be introduced. The method recommended for teaching Urdu as the first language in *The Curriculum for Primary Schools in Pakistan* is also recommended for teaching Urdu as a second language. It is recommended that reading material should be based on controlled spelling patterns. The nature of the Urdu writing system is such that this approach would be suitable for Urdu primers and beginning books.

It is recommended that special attention be paid to selection and preparation of teachers of Urdu as a second language.

Microfilm \$3.20; Xerography \$11.25. 248 pages.

A SURVEY OF BILINGUAL PROGRAMS AND OUTCOMES IN SELECTED AMERICAN-SPONSORED OVERSEAS SCHOOLS IN LATIN AMERICA

Joanne G. Fraser, Ed.D.
University of Alabama, 1970

This study had three major dimensions. The first dimension described the bilingual programs in eight American schools in Latin America. The second

aspect involved measurement of bilingual achievement of students to compare bilingual program outcomes. The third dimension was the development of bilingual program models indicative of language outcomes.

American schools in Columbia, Guatemala, Mexico, and the Dominican Republic were selected and visited to obtain language program input and organizational information. A total random sample of 678 students from grades one through twelve was tested with the language-related instruments of the Cooperative Inter-American Tests in English and Spanish. Test scores, length of time in the program and grades in English and Spanish were utilized as variables to determine whether significant separation could be obtained with discriminant analysis between the major types of program organizations identified. The statistical technique, discriminant function, showed the degree of separateness of the criteria groups predictable by the selected variables.

The program elements creating major organizational differences included:

- 1) type of diploma program offered
- 2) admission policy
- 3) instructional use of each language
- 4) time scheduled for language instruction
- 5) provision for monolinguals
- 6) type of grouping for instruction

At the elementary level, the major patterns of organization identified in the schools included:

Pattern I Equal time and equal instructional use of English and Spanish

Pattern II Unequal time and unequal instructional use with English predominant

At the secondary level, the identified patterns of organization included:

Pattern I Equal time and equal instructional use of English and Spanish

Pattern IIIA Equal time and unequal instructional use with Spanish predominant

Pattern IIIB Equal time and unequal instruction use with English predominant

Subjects were grouped according to the type of program in which they were enrolled. Significant discriminations were obtained between Patterns I and II at the elementary level and among Patterns I, IIIA, and IIIB at the secondary level which exceed .001 in every case. When subjects were regrouped by native language, English or Spanish, evidence of pattern difference was obtained which exceeded .0001 significance in every case.

Differences in native and second language performance were expressed in the mean percentage of difference the English and Spanish versions of the same measure. The smaller the mean difference, the more representative it was of bilinguality; the larger the mean difference, the more representative it was of

bilingual imbalance. When no distinction was made with respect to native language, evidence of balanced bilinguality was most closely associated with Pattern I at all grade levels of testing. When native language was considered, Pattern I appeared most likely to produce balanced bilinguality only for native English-speaking subjects; native Spanish-speakers in Pattern I had significantly lower mean performances on English measures. Pattern II at the elementary level and Pattern IIIB at the secondary level seemed most likely to produce balanced bilinguality in native Spanish-speaking subjects. Native English-speakers in those patterns had significantly lower mean performances on Spanish measures. To the extent that the samples of students tested were representative of all students, these results could be generalized to the student populations of the schools studied.

To conclude the study, five models were developed depicting the organizational elements of the major bilingual program patterns identified. Each model was representative of an average school day and showed the major variables, time and instructional use, in the proportional dimensions of the model. The balance of bilingual outcome which could be anticipated for each organizational pattern was also expressed statistically in each model.

Order No. 71-9090, 314 pages.

MODERN LINGUISTIC THEORY AND LANGUAGE INSTRUCTION IN A BILINGUAL MILIEU: DEVELOPING A STRATEGY FOR PRIMARY ENGLISH INSTRUCTION ON GUAM

Patsy Gaynell Pool Layne, Ph.D.
University of Pittsburgh, 1970

The improvement of oral English instruction in primary classrooms of Guam for children whose mother tongue is Chamorro was the task for which this study was developed. Linguistic and learning theories for second languages, the particular language instruction problem of Guam, and a framework for viewing curricular innovation were examined to develop a strategy for improving language instruction.

Six sections of the study deal with: (1) using a second language for formal instruction; (2) teaching English to young Chamorro speakers; (3) modern linguistic and learning theory; (4) educational innovation; (5) the socio-political environment of Guam; and (6) the Guamanian school system. The content and conclusion of these sections are described below.

1. An examination of the implications of the use of second languages for formal instruction led to these conclusions: (a) There are often practical considerations that result in the use of second language in instructional settings; (b) Learners are academically handicapped to the extent that they have not mastered the language of instruction; (c) Learning to read is especially difficult when reading instruction is based on a second language, and (d) It is likely that a child in a bilingual milieu develops a negative self-concept when his mother tongue is not used for formal instruction.

2. An examination of the instructional task, teaching English to young Chamorro speakers, determined the criteria for selection and sequencing of specific objectives and appropriate techniques for reaching those objectives. A significant component was a contrastive analysis of Chamorro vis-a-vis English. This part of the study included a description of present classroom practices, of teacher and pupil skills and motivations that relate to English instruction, and of curricular goals of the Guamanian school system.

This analysis of the instructional task was based on data gathered by examination of curricular materials and of linguistic studies, by direct observation of teachers and classroom activities, by informal interviews, and by administering questionnaires.

3. Current theories relating to human learning and language acquisition were analyzed to determine areas of agreement, on an operational level. The instructional procedures that have a basis in the major schools of current linguistic theory were described, based on this synthesis. The procedures relate to these considerations: practice; understanding; emotions; and the biological development of the learner.

4. Case studies of educational innovation were analyzed to determine critical factors that must be considered in developing a strategy for improving curriculum. Questions were formulated to yield information about the nature of the innovation and the significant characteristics of the system, in this case the Guam milieu. An assessment scale was used to predict probable viability of alternative strategies.

5. The Guam milieu was described in terms of probable constraints and possible supportive factors related to the proposed innovation. Information about the socio-political environment was gathered by examining documents, by direct observation during five months on Guam over a period of time from March, 1968 to August, 1969, and by an analysis of information gained from administering written questionnaires.

6. The Guamanian school system was described in terms of characteristics of the system, such as its structure, flexibility, and financial support base and in terms of the people within the system who are relevant to this task.

On the basis of the information gathered, a plan for implementation was proposed, that included the development of a detailed syllabus embodying

curriculum decisions about content, instructional techniques and sequencing of material. The syllabus is available at the Guam Department of Education.

Both the syllabus and the implementation strategy recommendations reflect assessments made throughout the study. Judgments concerning chances for viability of alternative strategies in the Guam setting were based on those assessments.

Order No. 70-22,743 M \$4.65; X \$16.45. 362 pages.

BILINGUALISM IN MOORISH SPAIN

Billy Bussell Thompson, Ph.D.
University of Virginia, 1970

The analysis of the languages spoken on the Iberian Peninsula following the Muslim invasion of A. D. 711 has been subjected to a full circle of linguistic and historical interpretations. Philologists and historians writing prior to the nineteenth century—save López Madera and Correas—insist that all of the conquered portions of the Peninsula were exclusively Arabic-speaking following the initial invasion; however, in the late nineteenth century the theory that Hispano-Romance was conserved by the Christians and adopted by the Muslims through all phases of the Moorish occupation becomes the characteristic position of Hispanic philologists.

In my own analyses of the principal documents which have been crucial in the controversy, as well as the new material which I consider pertinent, the evidence tends to support a more widespread usage of Arabic in Muslim-dominated Spain than Simonet, Menéndez Pidal, Sánchez-Albornoz et al. have been willing to admit. In the bordering Christian and Muslim kingdoms of the North, I have cited multiple examples of bilingual retainers and monarchs, especially in the eleventh and twelfth centuries. Arabic-Hispano-Romance bilingualism appears to have been common among the officials and poets of the era. I have also reviewed the linguistic divisions within the Peninsula and the widespread persistence of Arabic among the Moriscos through the sixteenth century.

In summarizing the patterns of language division in the seven centers which I have selected, certain preliminary conclusions can be drawn. The Toledan Mozarabs were certainly bilingual, with Arabic as their chief language until the reconquest of the city; they continued to use Arabic as an official language even in the thirteenth century. In Saragossa there is evidence of a Romance-speaking population at least until the eleventh century; later documentation indicates that the Mozarabs had become bilingual or Arabic-speaking. Bilingualism among

the Muslims of Saragossa was rare, and a large segment of Arabic-speakers remained until the early sixteenth century. In Valencia there are large numbers of bilingual Mozarabs at least until the time of the Cid. Valencia later became the center of a large nucleus of apparently intractable Moriscos who spoke Arabic exclusively until the mid-thirteenth century. The terms of the definitive capitulation isolated large segments of Arabic-speaking Mudéjares in the rural areas of the region until the sixteenth century. A gradual and effective Islamization of the Cordovan Mozarabs began in the ninth century. By the late tenth century bilingualism among the Mozarabs of Cordova was rare, and by the mid-twelfth century the Mozarabic population was probably annihilated. Although there are records of a small and somewhat scorned bilingual Mozarabic population in Seville until the early twelfth century, most of the Mozarabs had learned Arabic somewhat earlier. No record of a Christian population in Seville can be found beyond the mid-twelfth century. In Granada the entire bilingual Mozarabic population disappears by the mid-twelfth century. Following the capitulation of Granada, it can be demonstrated that the majority of the Morisco population spoke only Arabic prior to 1568.

With regard to the nonhistorical methods for gauging bilingualism, certain tentative evaluations have been made. Neither Arabic > Hispano-Romance nor Hispano-Romance > Arabic lexical borrowings are accurate indicators of intensive bilingualism. On the other hand, phonological, morphological, and syntactic influences are seen as the only accurate symptoms of a bilingual situation. Likewise, my admittedly peripheral analysis of the *jarchas* leads to the conclusion that they are not necessarily indicative of bilingualism in the place nor at the time of their composition.

Order No. 70-26,581, 195 pages.

MULTILANGUAGE EDUCATION AND BILINGUALISM: THE FORMATION OF SOCIAL BROKERS IN SINGAPORE

Douglas Patterson Murray, Ph.D.
Stanford University, 1971

In Singapore, as in many new nations, few problems have threatened political stability more seriously than the difficulties of formulating language policies. Three major ethnic groups (Chinese, 76%; Malays, 12%; and Indian Tamils, 7%) must be accommodated within Singapore's political order. Although Malay is the National Language, education is also provided in Chinese (Mandarin), Tamil, and English. Historically, Chinese youth have attended only Chinese- or English-medium schools, creating two distinct "ethnic" communities within the Chinese

population. Despite the rapid growth of English schooling since 1950, one third of Singapore's Chinese students now enroll in Chinese-medium schools, and this proportion recently has stabilized. Bilingualism is an official policy goal, and second language study is required in both education streams. This dissertation analyzes how multilanguage education and bilingualism relate to social pluralism and integration among the Chinese of Singapore.

The study is organized around the concept of bicultural "brokers," who, as agents of social integration, participate in two (or more) ethnic communities. Elite brokers theoretically are most effective in integrating society as a whole. Since language is a principal determinant of ethnic identification and solidarity, the analysis is framed in terms of speech communities, and bilingualism is taken as the principal indicator of broker behavior. Data were obtained in 1969 principally through a self-report sociolinguistic questionnaire administered to a sample of the prospective elite: 900 Chinese-stream and 800 English-stream pre-university students of Chinese origin, and 800 and 500 first-year students at the University of Singapore (English) and Nanyang University (Chinese), respectively.

The persisting demand for both Chinese and English-medium schooling is related to the distinct functions served by the respective languages: English as an economic asset, and Chinese as a basis of cultural identity. Parents' "cultural distance" from China (birthplace and education medium), and their cultural and financial security, have largely determined the choice of their children's education medium. The increase of locally born, Chinese-educated parents, and current student attitudes, suggest that the demand for education through Chinese will persist, despite the steady decrease of China-born adults and the growing economic dominance of English.

To measure bilingualism, Guttman-type scales of attitudes toward the usage of English, Mandarin, and Malay were constructed; self-reported abilities and school examination scores were used as measures of technical skill. As predicted, Chinese-stream students were much more "attitudinally bilingual" than their English-stream peers. Although the great majority of both streams were not effectively bilingual, Chinese-educated youth also are twice as likely to use their second language (English) regularly. In neither stream did individual school, type of school, or field of study have a strong bearing on the creation of bilingual brokers; second language attitudes and usage were principally a function of the same cultural and economic background factors that determined the initial choice of education medium. The growing number of Chinese-stream students who enter the English-medium university and enjoy unique opportunities to develop broker skills, are disproportionately from homes that provided financial and social reinforcements for learning English. Formal education has fostered bilingualism only to the extent allowed by independent demographic and cultural changes.

Nevertheless, stable and relatively widespread bilingualism is a realistic goal because of the different functions served by English and Chinese, and the desire of most young Chinese to share in both Anglo and Chinese culture. The upper socioeconomic strata are evolving into an English speech community; brokers, emerging largely from the economically subordinate language stream (Chinese), will serve largely to link ethnically distinct classes of a politically dangerous system of "ethnic stratification," in which Chinese-educated persons from low SES, culturally Chinese families (those least likely to become bilingual) are at the bottom. The present education system intensifies this danger by forcing parental choice between language streams. A unified system of bilingual schooling is needed to distribute the burdens of, and opportunities to develop, effective bilingualism more equally.

Order No. 72-11,627, 419 pages.

BILINGUAL EDUCATION FOR AFGHANISTAN

Mohammad Esmae' Burhan, Ph.D.
The University of Texas at Austin, 1972

Supervisor: John G. Bordie

The study is concerned with the teaching and learning of Dari and Pushtu as second languages in Afghanistan.

Afghanistan is a multi-lingual nation, a country in which some thirty languages are spoken. In the new Afghan Constitution (1964) only two languages, Dari and Pushtu are recognized as the official languages.

The existence of two official languages confronts the Ministry of Education with important educational problems. There are several million Afghan students who must acquire either Dari, Pushtu or both as second languages and they usually learn these languages from poorly trained teachers who have little or no linguistic and pedagogical experience. Dari and Pushtu textbooks currently used are not based on sound linguistic or pedagogical principles; consequently, they lack sequentially organized phonological and grammatical material appropriate to the students' age group. The investigation of these problems falls in the domain of this dissertation. More specifically, it (a) describes and examines bilingual education in the present Afghan schools; (b) analyzes factors which are related to the present bilingual situation; (c) suggests linguistic and pedagogical measures to be taken for the improvement of the current situation; and (d) suggests areas for further investigation.

Order No. 73-7520, 161 pages.

LANGUAGE USE AT LARTEH, GHANA: A SOCIO-LINGUISTIC STUDY OF A BILINGUAL COMMUNITY

Bruce Champney Johnson, Ph.D.
Northwestern University, 1973

This dissertation is a descriptive study of language use at Larteh (population in 1970, 6733), a town on the Akwapim Ridge in southern Ghana. The descriptive framework adopted is that developed in recent work in sociolinguistics concerned with the measurement and description of societal multilingualism. The linguistic situation in the town is characterized by stable, widespread, non-reciprocal bilingualism. Lartehs, who comprise most of the population, are universally bilingual in the Larteh dialect of Hill Guan and the Akuapem Twi dialect of Akan. On the other hand, knowledge of the Larteh language is essentially restricted to Lartehs. Guan-Akan bilingualism in the area is attested from 1854 and probably has obtained for much longer. The situation appears relatively stable despite the weak perpetuating mechanism of Larteh, i.e., it does not have a body of monolingual speakers, is not a written language, and is not used in the schools or churches.

Chapter 1 is an introduction. Chapter 2 presents background information on the community, its people and languages. Chapter 3 contains a review of the literature on sociolinguistics with special reference to Africa and a statement of the theoretical and methodological background of the study. The data derive from a number of linguistic and anthropological techniques, and also from an interview schedule administered to 330 residents of the town. The study benefited from a previous anthropological study by David W. Brokensha (*Social Change at Larteh, Ghana*, Oxford: Clarendon Press, 1966).

A description of language use in the community is presented in Chapter 4. The linguistic repertoire of the community includes, in addition to Larteh and Twi, English, claimed by half the adult population, and at least twenty languages of lesser importance. The distribution of these languages is described in terms of the situations in which they are used and demographic characteristics of their users. Community attitudes toward language behavior is also described.

In Chapter 5, the descriptive results of the study are discussed from several viewpoints. These include a summary in terms of more general factors governing language use, comparison of the situation with that obtaining elsewhere in Ghana and in Africa, the place of Larteh in some sociolinguistic typologies, the historical development of the situation and indications of present and future change, and directions for future research.

Order No. 73-30, 622, 313 pages.

CATEGORIZATION STYLES OF BILINGUAL AND MONOLINGUAL PRESCHOOL CHILDREN IN LEBANON

Julinda Adeeb Abu Nasr, Ph.D.
The Florida State University, 1973

Major Professor: Ruth J. Dales

Studies in cognition have occupied a large portion of the Child Development literature in the last decade. How the organism achieves, retains, discriminates and classifies information has been of major concern to researchers. It has been assumed that each individual has his or her unique style or pattern in dealing with these perceptual and conceptual tasks. Individual differences have been attributed to a number of factors among which are sex, age, social class, school, culture and language.

To study the validity of this assumption the present research was undertaken. The major concern was to detect any differences that might exist between members of the same culture who are monolingual or bilingual.

Controlling for age, social class, language spoken and years of schooling 201 five-year-olds were studied from different schools in Beirut, Lebanon, which is known to be a bilingual country. The bilingual group consisted of 123 children, 75 females, 48 males; and the monolingual group consisted of 78 children, 43 females and 35 males. The age range was four years and eleven months to six years, with a mean age of five years and four months.

Twelve hypotheses were examined in this exploratory study that were concerned with differences between bilingual and monolingual males and females in (a) classification styles, (b) grouping behavior, (c) verbal abilities, (d) number of errors and response time on a matching-figures test, and (e) mental maturity.

A modified version of Sigel's Object Categorization Test, a Matching-Figures test and the Human Figure Drawing test were administered in Arabic to each child individually by the researcher. The testing took from 30 to 45 minutes. For statistical analysis the *t* test and correlations were used. Data analyses revealed the following statistically significant differences ($p < .05$).

Bilingual children exhibited superior behavior to monolingual children in higher frequency of grouping responses and lower frequency of nonscorable responses in the Active condition; more frequent use of form and appropriate-form responses in both test conditions; fewer errors in matching figures within the same length of time and higher scores in the mental maturity index.

Males exhibited superior behavior to females in more frequent use of appropriate labels to interpret groupings in both test conditions.

Bilingual males exhibited superior behavior to bilingual females in offering fewer partial responses in both test conditions.

Monolingual males exhibited superior behavior to monolingual females in lower frequency of nongrouping responses and more frequent use of appropriate verbal responses in the Passive condition.

Monolingual females exhibited superior behavior to monolingual males in lower frequency of functional responses and appropriate-functional responses in both test conditions.

Bilingual males exhibited superior behavior to monolingual males in more frequent use of form and appropriate-form responses; less frequent use of functional and appropriate-functional responses in both test conditions; higher scores on the mental maturity index.

Bilingual females exhibited superior behavior to monolingual females in higher frequency of grouping responses and appropriate verbal responses in the Passive condition of the test; use of fewer nongrouping and nonscorable responses in both test conditions; higher frequency of form responses in the Active condition; fewer errors in matching figures and higher scores on the mental maturity index.

In view of the results achieved, it is possible to conclude that differences in categorization styles, grouping behavior, verbal abilities, number of errors and response time in matching figures and mental maturity between bilinguals and monolinguals are prevalent. The data pointed to the superiority of bilinguals in these conceptual tasks. Any definite conclusion is premature, but one might speculate that the bilingual is at an advantage in tasks that require discriminatory abilities.

Order No. 74-6727, 151 pages.

BILINGUAL BEHAVIOR IN A ST. LUCIAN COMMUNITY

Lieberman, Dena, Ph.D.
The University of Wisconsin, 1974

Supervisor: Professor William W. Elmendorf

The purpose of this study is to describe and analyze the sociocultural factors patterning individual behavior related to the two major languages of St. Lucia—English and a French-based creole language, locally termed "Patois." I examine patterns of language usage in relationship to language attitudes. Phonological, lexical and syntactical features of English and Patois are examined for indications of structural interference, and examples of linguistic borrowing between the two languages are used to explain problems of language acquisition.

My principal concern is to describe language behavior in relationship to the sociocultural factors which influence it. For this reason, I consider the history of the establishment of English and Patois on the island, as well as the socio-economic setting of Soufrière, a village on the southwest coast of St. Lucia where the major part of my study was conducted. Three major techniques were employed during this study: informal interviews were conducted in an effort to acquire information about language usage and attitudes; a linguistic questionnaire was given to a representative sample of bilingual speakers to determine how informants say they use language; and the matched guise technique, borrowed from social psychology, was used to determine underlying attitudes toward language. In addition to the objective schedules listed above, I also made observations of language behavior through the traditional anthropological technique of participant-observation.

The data collected during this field work suggest that St. Lucians use English and Patois for specific and distinct purposes. Associated with each language is a set of values and traditions and the bilingual speaker chooses language in association with this dual value system. Another finding is that English and Patois display linguistic interference which influences language acquisition. It can be shown how native Patois speakers pattern their English on models of Patois phonology and syntax. This linguistic interference results in educational problems which are detailed, and suggestions are made for future language planning in St. Lucia.

Order No. 74-19,565, 189 pages.

FRENCH AND ARABIC BILINGUALISM IN NORTH AFRICA WITH SPECIAL REFERENCE TO TUNISIA: A STUDY OF ATTITUDES AND LANGUAGE USE PATTERNS

Stevens, Paul B., Ph.D.
Georgetown University, 1974

Although Arabic is the native language of some 99 percent of the population, Tunisia is remarkable for the extent to which French has become a working language among not only the best educated elite classes but even among the relatively less educated middle class and segments of the skilled working class. The role of French equals or surpasses that of Arabic in most levels of education and government. Tunisia has become a bilingual country where the second language, French, is the mother tongue of practically no one outside the small European population.

The language situation is complicated by the existence of two distinct types of Arabic — the local dialect and Classical Arabic — which are in a diglossic relation to each other. According to traditional patterns of Arabic diglossia, we should expect to find Classical Arabic used in many situations where in fact the dialect or French is used. The language situation is further complicated by the fact that Classical Arabic has had a long religious, scientific, and literary tradition, leading many Tunisians to want to restore this language to what they consider its rightful place as the national language.

This thesis investigates the use of French, Tunisian Arabic, and Classical Arabic in various situations in Tunisia. Attitudes of Tunisians toward these languages and toward maintaining bilingualism or instituting programs of Arabization are also examined. The use of and attitudes toward both spoken and written language for formal and informal purposes are studied. Occasional reference is made to neighboring Algeria and Morocco where, in spite of similar colonial histories, the linguistic situation contrasts in important ways with that of Tunisia.

Field work was conducted over a period of a little more than two and one half months in Tunisia during the summer of 1973 and during a two-month stay there in the summer of 1971 to study Tunisian Arabic. Although a questionnaire was used as a control device, most of the data was gathered by means of direct personal observation of Tunisians' written and spoken language use with other Tunisians. As for language attitudes, the attempt was made to seek out unsolicited statements regarding the status or proper role of French and Arabic. Finally a good deal of information was gathered through interviews with a number of Tunisian executives.

Order No. 75-7868, 373 pages.

LANGUAGE SHIFT IN A BILINGUAL HEBRIDEAN CROFTING COMMUNITY

Coleman, Jack David Bo, Ph.D.
University of Massachusetts, 1975

Director: Dr. Alfred B. Hudson

This thesis describes and analyzes the process of language shift that is presently taking place within the village Carloway, on the Isle of Lewis, Outer Hebrides. The study has been based upon two premises: (1) that speech is a form of social behavior, and (2) that like other forms of social behavior it is an adaptive device—i.e., it enables people to respond effectively to changes in

their social, political or economic circumstances. It adopts and expands upon Haugen's (1953) tripartite processual model of shift (switching-interference-integration) and subsumes it under an interactional metatheoretical framework based upon the work of Mead (Strauss 1956), Parsons (1951), Berger and Luckman (1966) and others.

The methodology used is heavily qualitative and ethnographic, but is supplemented by rather simply quantified survey materials obtained during the last phase of field work.

Various aspects of the language situation in Carloway are examined: the function of language as a boundary maintenance device (the Courtesy Rule); the relation of speech to aspects of social structure; the language socialization process among children; the different varieties of Gaelic and English spoken in the village; and attitudes toward language. It is shown that English is not only being learned earlier in life by more young persons, but that the importance of Gaelic and English as social boundary markers is being eroded among the young. English is becoming increasingly acceptable among the young for use in institutionalized settings or domains previously restricted to Gaelic.

The research was undertaken at a time (1973) shortly after the apparently long-stable Gaelic/English speech boundary between rural Lewis and the town of Stornoway had begun to crumble. This boundary was becoming re-established on a far less stable and entirely different basis within the formerly solidly Gaelic countryside. The new basis was essentially one of age or generation. The movement of English into the rural areas of the island, through the children, appears to be the prelude to the final phase of general withdrawal of Gaelic from public usage as the primary medium of communication. This final step has not yet come about, however, in most of rural Lewis.

Order No. 76-5323, 311 pages.

NA KAI KANDAVU: A STUDY OF BILINGUALISM, ACCULTURATION, AND KINSHIP IN THE FIJI ISLANDS

Cook, Barbara Ellen, Ph.D.
Stanford University, 1975

Chairperson: Frank Cancian

The concern of this thesis is the relationship between bilingualism, acculturation, and kinship among the people of Namuana and Namalata villages,

Kandavu, Fiji, and the members of those villages who have migrated to the urban area of Suva on the main island of Viti Levu, Fiji.

The material is presented in two sections. The first section gives a description and comparison of the demographic, social structural, and sociolinguistic characteristics of the rural and urban Kandavan communities studied. The second section presents the theoretical model of the thesis and applies this model to the domain of kinship.

Chapter II describes the rural villages in terms of subsistence type, basic demographic features, and social organization. Emphasis is placed on a cross-generational shift in village marriage patterns in which a trend toward village endogamy in former times is contrasted with a strong tendency toward village exogamy in current marriages. It is also suggested that analyses of Fijian household composition in terms of traditional family types may be misleading and an alternative method of analysis, combining the developmental cycle approach with a structural definition, is proposed.

Chapter III presents a parallel description of the community of migrants in Suva. Certain of the social structural characteristics of the rural community were not present—specifically, subsistence agriculture, spatial patterns, and a kin-based social organization. Analysis of urban marriage patterns indicates that they are making more distant marriages than villagers. While the rural current generation is marrying outside the immediate village area, they are still marrying other Kandavans; the urban migrants are marrying outside the Kandavan community.

Chapter IV deals with the rural villages and the urban migrants as speech communities. General patterns of language use are discussed. Language usage is found to be an important marker of social identity. The major contrast between the village and the urban speech communities is that the former is a face-to-face community and the latter is not. In the village community, the local dialect is the medium of day-to-day communication and language choice is limited to village dialect versus Mbauan standard and is dictated primarily by formality of setting. In Suva, Mbauan standard is the medium of communication in the wider community and the urban Kandavan is constantly faced with a choice among village dialect, Mbauan standard, and English and his decision is based on both personnel and on setting.

An investigation of the sociometric choices of the urban sample indicates that the migrants' social relationships are concentrated within the urban Kandavan speech community. There is some indication that voluntary associations are becoming important to the social interaction networks of the younger urban man.

The data on the language attitudes of the urban migrants indicate that Mbauan and English have high prestige, but not to the detriment of the village dialect.

Competence in the village dialect is an important marker of village identity and use of the village dialect is obligatory in interaction with other villagers.

In Chapter V a cognitive model of culture is proposed. It is suggested that the processes underlying acculturation are structurally and dynamically analogous to those of bilingualism and that acculturation can be viewed as a confrontation of cognitive systems in the acculturating bilingual individual.

Chapter VI applies the model to the domain of kinship. Following a discussion of sources of variation in kinship terminologies, sets of kin terms elicited from twenty-two informants are analyzed in terms of lexical variation and the effect of such variation on the principles of ordering within the domain.

Order No. 75-13,502, 248 pages.

DEVELOPMENT OF BILINGUAL READING COMPREHENSION AMONG BILINGUAL YORUBA NIGERIAN HIGH SCHOOL CHILDREN

Daramola, Samuel Feyisara, Ph.D.
Columbia University, 1975

The investigation explored the development of bilingual reading comprehension among Yoruba Nigerian high school students.

A literature review revealed that, psychologically, bilingualism has been classified into *balanced* and *dominant* types in terms of degree, i.e., relative proficiency in the two languages and into compound and coordinate in terms of whether the two languages are learned in joint or separated context. The review also revealed that degree and context are somehow related, that sociocultural variables are largely responsible for the kind of bilingualism a person develops, and that degree of bilingualism is not static. The present investigator suggested the term *bilingual dominance inversion* or *inverted dominance*, for short for the kind of bilingualism in which the second language becomes the dominant one.

It was noted that in the Yoruba society, the society and the school emphasize and reward proficiency in the English language, and that different socioeconomic status groups differ as to which of Yoruba and English they tend to use. It was therefore hypothesized that the degree of Yoruba-English bilingualism of the Yoruba Nigerian high school child is related to educational level and socioeconomic status such that lower grade and low SES pupils are dominant in Yoruba while higher grade and high SES pupils are dominant in English.

The sample consisted of 1,116 Yoruba Nigerian Students of both sexes drawn randomly from Classes 1 to 6 in ten high schools in Western Nigeria.

Language proficiency was measured directly by the English and the translated Yoruba versions of Levels 3 and 7 of the I.E.A. Reading Comprehension Tests, and indirectly by a scale of self-rating in English and Yoruba language skills. Each measure yielded a score for each language and also a bilingual score. A Self-rating on frequency of dreaming in English was also used, as a 5-point criterion measure (DRMEFQ) and as an independent dichotomous score (DRMEC). Socioeconomic status, an independent trichotomous variable, was assessed with a socioeconomic background questionnaire. Class in school was used as the measure of educational level.

The measures of bilingualism were analyzed for the total sample and for each of three SES groups by correlational analysis and by analysis of variance. Degree of bilingual reading comprehension was not related to educational level except among high SES students. But it was related to socioeconomic status such that the low SES students were dominant in Yoruba, the middle SES students were balanced bilinguals, and the high SES students were dominant in English. A similar pattern emerged for self-rating in bilingualism. The explanation offered for the results on reading comprehension was that, while as a consequence of his socioeconomic background, a student has developed more proficiency in a particular language before he enters high school, his further educational experience, which emphasized English, does not change his degree of bilingualism because of his continued contact with the other language, and because of the transfer of proficiency from one language to the other. Knowledge of results, Achievement, and nationalism were offered as explanations for the results on self-rating.

Contingency table analysis showed that reported frequency of dreaming in English (DRMEFQ) was positively related to educational level. It also correlated with most measures used in the study. Those who reported dreaming in English (DRMEC 2) were dominant in English while those who reported not doing so (DRMEC 1) were dominant in Yoruba. It was concluded that self-rating on the frequency of dreaming in a language could be a valid indirect measure of proficiency in that language.

Suggestions for further studies were offered, and in some cases, tentative hypotheses were formulated.

Order No. 75-27,394, 139 pages.

ALTERNATIVES FOR BILINGUAL EDUCATION IN THAILAND: THEORY AND PRACTICE

Frederickson, Charles K., Ph.D.
Loyola University of Chicago, 1975

The dissertation is written in the major area of Comparative and International Education, and it incorporates a multi-disciplinary approach based upon the social foundations of education. The methodology used is of an historical or documentary nature, written in a descriptive form. The dissertation draws upon extensive field work conducted in Thailand where the writer served for nearly six years as a Peace Corps Volunteer working within the Thai educational system, and through experience gained by working with bilingual education programs in the United States.

The alternatives presented are developed specifically for Thailand, considering the present-day Thai socio-cultural framework. With regard to scope, no attempt is made to try to capture the full range of socio-cultural, linguistic, and educational factors relevant to bilingual education in Thailand. Rather the various sections begin with broad, theoretical generalizations narrowing toward specific references and practical orientations for each topic area.

General goals of the dissertation follow:

(1) "Alternatives for Bilingual Education in Thailand: Theory and Practice" provides background information and supportive evidence for schools and local communities; municipal, district, provincial, and regional educators; and university/ministerial level program developers in planning and structuring for the implementation of bilingual education programs.

(2) The dissertation serves as a resource document and catalyst to be adapted by Thai educators as they plan optional bilingual programs and as a prototype for other groups or nations as they structure familiar programs.

(3) The dissertation suggests steps to follow in planning and organizing a bilingual program, presenting numerous sets of educational alternatives and models, procedures for determining need, and suggestions related to evaluation, needs assessment, and accountability. These are intended to be guideposts for decision making rather than priority statements.

(4) The dissertation formulates a basic philosophy and rationale concerning bilingual education in Thailand, analyzing historical, social-cultural, linguistic, and political perspectives.

(5) The dissertation offers flexible needs and goals for each of the interrelated components which would encompass instructional, staff development, community, and management services for Thailand's entire school population, from Pratom one through Matayom Suksa five or the equivalent.

It is the contention of the writer that the adoption of bilingual education in Thailand will benefit societal and political needs and the needs of individual students, will facilitate students' developmental processes in cognitive and affective areas, and will establish a mechanism for effective utilization of students' educational and economic potential.

Order No. 75-14,508, 216 pages.

A HISTORY OF ENGLISH TEACHING IN THE PHILIPPINES: FROM UNILINGUALISM TO BILINGUALISM

Tovera, David Garcia, Ph.D.
Northwestern University, 1975

The purpose of the study was to bring to the surface those factors that have contributed to the introduction and development of the teaching of English in the Philippine educational system. By virtue of its educational policy, the American colonial administration started using it as medium of instruction. But this exclusive use of the alien language was contested in the later periods until the Philippine government evolved a language policy elevating the native national language, Pilipino, to co-exist with the English language.

The Americans had found the Philippines to be a multilingual country and so the need for a common language was of prime importance to them. Spanish was spoken by a few and no major vernacular had been developed.

The historical method of research was used in the identification of these factors. Sources of information came from United States government documents, Philippine Bureau of Education reports, circulars of school officials at the helm of educational affairs, reports of educational survey teams and missions to the Islands, and periodicals.

The acceptance of American sovereignty and of the goals of the American administration in the archipelago provided the background for the initial teaching of English. To the Filipino, it meant gaining access to government jobs, to the rich store of western arts, literature and sciences, and to a knowledge of democratic ideas. English, too, was becoming fast a medium of trade and commerce between Manila and her neighbors. And more important, the language had a levelling influence in society, a contrast during the Spanish regime when caciquism prevailed. The propagation of the language was effected not only through the schools but also through government instrumentalities and the media.

Optimism ran high among Filipino leaders, especially the nationalists, that someday English would be the common language and that it would be a factor for the national solidarity of the Filipinos.

But doubts about achieving the goal were raised in the first extensive educational survey in the Philippines in 1925. These doubts were attributed to lack of models, inadequate teaching materials, insufficient funds, lack of supervision, unsatisfactory teaching methods — to name some. The policy of using English, however, remained.

A shift in the language policy began to appear in the 1934 Constitutional Convention when delegates, rising above their regional linguistic differences, voted for a search of a native common language. Executive leadership during the Commonwealth period paved the way for Tagalog to be the basis for the common language, which shall become also an official language by 1946, the date of independence. The brief Japanese occupation of the Islands spreading the gospel of Asia for the Asians intensified the dissemination of Tagalog but it failed to obliterate American influence in the country.

The post-war years saw the emergence of diploma mills and the deterioration of English instruction. Educational surveys and studies identified the language problem as a serious one. A UNESCO study on fundamental education favored the use of the vernacular in the first two grades and the use of English as medium beginning in the third grade. The community school movement geared to increasing the literacy rate recommended strongly the use of the vernacular. Research supported this recommendation.

The school system was headed for bilingualism with the adoption of a language policy in the late 50's. Under attack in the Constitutional Convention in 1971 and by pro-English elements, Pilipino survived as an official language. The New Society under President Ferdinand Marcos has emphasized the need for bilingualism.

The study shows that the teaching of English in the Philippines has been intertwined with the political, economic, educational and cultural life of the country, and that the shift to bilingualism has been motivated by a strong sense of nationalism and internationalism.

Order No. 75-29,771, 192 pages.

II. ASSESSMENT

LANGUAGE PROFICIENCY

A COMPARISON OF DEGREES OF BILINGUALISM AND MEASURE OF SCHOOL ACHIEVEMENT AMONG MEXICAN-AMERICAN PUPILS

James Oscar Lugo, Ph.D.
University of Southern California, 1970

Chairman: Professor Metfessel

PURPOSE

The major purpose of this study was to explore the relationship between three degrees of bilingualism of Mexican-American pupils, from the ghetto of Los Angeles and fifty-six measures of school achievement in order to develop criteria for early pupil placement into one of the three existing school programs: (1) English-as-a-second language; (2) bilingual education; and (3) the regular school program. Ancillary goals were to explore the corollary effects of sex and intelligence on the measures of school achievement. Another purpose was to develop an instrument for measuring educator and pupil readiness to participate in bilingual education.

HYPOTHESES

Null hypotheses were advanced for all the above relationships.

PROCEDURES

A random sample of fifth-grade Mexican-American pupils from six elementary schools were classified on the Lugo Bilingual Index in terms of (1) preferred language or languages, (2) pupil birthplace, (3) parental birthplaces, and (4) country or countries of early education. This resulted in a continuum of predominantly English speakers to predominantly Spanish speakers.

Through a series of fifty-six 3-way analyses of variance and a series of fifty-six 2-way analyses of covariance with intelligence as the covariate, the three

independent variables were tested for main effects and interactions with grade-point averages in ten school subjects from grade one through five and on the six subtests of the California Achievement Test at the end of the fifth year. To assess knowledge and attitudes related to bilingual pupils and education, the Lugo-Metfessel Bilingual Education Survey for Teachers (B.E.S.T.) was given to all principals and to a random sample of permanent and probationary teachers of the same school district. Results from this instrument were analyzed by a series of Kruskal-Wallis analyses of variance by ranks, *t* tests, and a correlation matrix.

FINDINGS

The multivariate analysis of pupil data yielded 46 significant differences at the .05 level of confidence out of a possible 1173. Such findings could have occurred by chance as a Type One error. The analysis of the B.E.S.T. yielded significantly higher scores for the principals. Principals and permanent teachers agreed significantly more so than probationary teachers that Spanish should be used as a language of school instruction for pupils who know little or no English. The mean score of educators suggested a neutral attitude toward bilingual education and a general lack of knowledge concerning the Mexican-American.

CONCLUSIONS

The regular school program in the school district studied does not seem to be helping the Mexican-American pupil to achieve school success regardless of (1) English language competency, (2) pupil birthplace, (3) parental birthplaces, (4) sex membership, (5) length of residency in the United States, and (6) scholastic aptitude. The results suggest that lack of English may not be the most important barrier to the school success of the Mexican-American. The fact that Spanish-speaking pupils of recent residency did not fall behind English speakers suggests that positive identification with one's culture is a more powerful motivator for tested achievement than competency in English. Perhaps the development of culturally relevant curriculums in both languages for use with speakers of Spanish and English of different residential backgrounds may provide the necessary alternatives. Educators of Mexican-American pupils need intensive in-service education.

RECOMMENDATIONS

The study should be replicated in the same school district and in others for validation and generalization purposes. Learning experiments using varying

amounts of both languages with contents reflecting both cultures with pupils of similar linguistic and cultural backgrounds may provide a basis for developing more effective bilingual programs. Evaluation instruments are needed to assess bilingual education. Order No. 71-7724, 172 pages.

AN INVESTIGATION OF THE RELATIVE BILINGUALISM OF SPANISH SURNAMED CHILDREN IN AN ELEMENTARY SCHOOL IN ALBUQUERQUE

Kathleen Marie Timmins, Ph.D.
The University of New Mexico, 1971

The United States is experiencing a new wave of sentiment for linguistic and cultural pluralism. The Bilingual Education Act provides a chance to recognize the place of language in education. Hopefully, this will be characterized by an understanding and acceptance of the language diversity of society and students. But this depends on much further utilization of the insights of sociolinguistic research.

Developments within the field of sociolinguistics have extended the parameters of language study by showing how language can be studied in relation to its social environment. To be realistic, educational goals must clearly derive from a realistic assessment of language situations.

To date, few attempts have been made to discover ways of obtaining basic societal information relevant to developing bilingual education programs. The purpose of the present study was to examine the relative bilingualism of Spanish surnamed children in the Armijo Elementary School in Albuquerque. The school was chosen because its principal said it had an enrollment of 72 per cent Spanish surnamed children. The study was designed to determine if language usage and proficiency vary in relation to number of years in the public school, and in relation to domain. In addition the investigator hoped to gain some insights into the language situation and to determine if the instruments utilized in the study could be used as effective measures in assessing relative bilingualism. Finally, an attempt was made to determine the correspondence of Spanish surname with Spanish speaking ability.

Children were selected from four levels according to number of years they had been in public school. A random selection of subjects was made from each level. Twelve children were selected at each level, six boys and six girls. Forty-eight children comprised the basic sample. At the third level, an additional

group of twelve children were selected to match the twelve children in the basic sample. This was done to determine if the ethnic identity of the interviewer and the language used to initiate the interview and proficiency measures made a difference in the responses given by the subjects.

The instruments used in this study were a Spanish usage rating schedule and a word naming task taken from the Fishman (1969a) study, and a picture response task. The Spanish usage rating schedule is an interview which consists of a series of structured questions designed to assess the degree to which subjects use Spanish and English with various bilingual interlocutors in school, at church, in the neighborhood, and at home. Responses were rated on a five point scale with 1 representing total use of Spanish and 5 representing total use of English. The word naming task involved having subjects name, within a certain time limit, as many different words referring to a specified context as they could. Words were given for one language, then the other.

In the picture response task children were asked to tell a story about pictures representative of the domains of education, religion, neighborhood and family. Comparable pictures were used for the same domain in both languages. Responses were judged according to a modified version of the FSI Scale.

The interview and the word naming task were given to each subject in the same session. The picture response task was given approximately one week later. The interview was initiated in Spanish and the directions given in Spanish for the matched group at level three. Results from the interview schedule show a consistent tendency toward English usage in all domains. In general, children identified Spanish usage with grandparents in the family domain, and with grownups in the other domains.

Results from the word naming task indicate that while there is a developmental trend in learning English words in all domains, there is not a comparable development taking place in Spanish.

Scores on the English picture response task were relatively high for all children. Responses on the Spanish picture response task indicated that the task was beyond the language capabilities of the majority of the subjects. Only 10 of the 60 subjects responded sufficiently to be judged.

The language situation can be characterized as one where Spanish is disappearing fast, preserved only for its connections with older people. To a Spanish surnamed child at Armijo School, Spanish is the language his grandparents speak to him.

Order No. 72-4802, 105 pages.

PROBLEMS OF ASSESSING BILINGUALISM IN CHILDREN ENTERING SCHOOL

John Wesley Hollomon, Ph.D.
The University of New Mexico, 1973

Recently, much emphasis has been placed on bilingual education, but little has been placed on the problems inherent in the assessment of the bilingual communicative competence of children at the time they enter school. It was often assumed that, because a Spanish surnamed child came from a home in which either or both parents spoke to him in Spanish, he entered school speaking both Spanish and English, perhaps, more Spanish than English. Since the causes and effects of bilingual schooling are to be found outside the school, it was important to take these into consideration. The extent to which the language or languages of the school may be used in the area in which it is located is an important variable in the language education of the child. Therefore, some measurement of this is prerequisite to any planning or research into bilingual education. There is a need to know the degree of match or mismatch between the modes of language use required for successful coping with school tasks and the modes of language use which children have learned in their homes, peer groups, and the like. Determining the degree of match required an investigation from both ends—in the school and in the natural speech communities from which the subjects came.

The purpose of this investigation was to examine the three basic problems encountered in determining the extent to which Spanish surnamed children were Spanish-English speaking bilinguals at the time they entered an Albuquerque Public School. The particular school was chosen for two reasons: (1) because at the time of the investigation it did not have a bilingual education program, and (2) because it had a pupil enrollment with eighty-seven percent Spanish surnames. The specific question focussed on whether the child was more competent in Spanish usage than English, or more competent in his use of English, or, equally competent in both, and in which domain (home, neighborhood, or school).

The first problem was to find suitable subjects and to make a selection based upon specified criteria. The second was to make a sociolinguistic survey to determine their language backgrounds. The third was to measure their relative, bilingual communicative competence. The aim was not to determine how much of each language the subjects knew, but to determine their abilities to operate in specified sociolinguistic situations with specified ease or effect. Thus, the various degrees of their bilingualism were gleaned from the interviews with both their parents and themselves, which surveyed their bilingual usage and proficiency, their attitudes toward both languages, their own and the other

group, and toward themselves; their performance on three tests (Word-Naming and Verb-Production, Sentence Imitation-Repetition, and Free Speech) were conducted in both languages, and used to reveal their underlying bilingual communicative competence.

As a result of the selection-interview, six suitable subjects were selected who were articulate and willing to cooperate with the investigative team. The home interview with parents and subjects revealed a trend—that is, the older the generation the greater the relative amount of Spanish usage; the opposite was true for the younger the generation; that Spanish is presently used more in the homes than English, but less than that used five years ago; that parents used more Spanish than English in the domains of education and the job, but more English in the domains of the church and the movies. The parents' attitudes were more favorable toward Spanish and the Spanish-Surnamed Americans than toward English and Anglo-Americans. The subjects used more Spanish than English with the older generations (and older siblings) in the domain of the home, followed by the domain of the church. They used mostly English with peers in the domains of the neighborhood and school, but were more proficient in Spanish in the domains of the school and the home, followed by the neighborhood; and, more proficient in English in the domains of the home and the neighborhood, followed by the school. Five rated English speaking higher than Spanish; whereas, three identified more with Spanish speakers than with English. The quality of their home linguistic environments ranged from rich to poor.

Seventeen bilingual ratings were assigned each subject: one based on responses to the selection-interview, ten, in accordance with results of the data collected in the interviews, and six based on performances on the three tests, including one for each of the three social domains. The degrees of bilingualism in each subject varied with the reports of language use and proficiency, language, group, and self attitudes, and, in some instances, from performance to performance and from domain to domain. The mean scores of bilingual ratings ranged from one English monolingual to one Spanish dominant.

The research methods, instrumental techniques and procedures employed revealed an adequate assessment of the degrees of the subjects' bilingual communicative competence; and thus, manifested a better understanding of how both languages are used to serve social functions. The investigation of the problems related language usage to context and accounted for both strictly communicative competence and the realization of that competence in actual settings of human communication. As a result, it provided a model for studying a bilingual population and the kinds of data that are relevant to planning for bilingual education curricula by providing estimates of the degrees of bilingualism of the children which could be used for instructional purposes.

Order No. 73-27,796, 387 pages.

THE DEVELOPMENT OF A REALISTIC VOCABULARY LIST FOR USE WITH PRIMARY CHILDREN IN SPANISH/ENGLISH BILINGUAL CLASSES

Woolley, Joanne Norris, Ed.D.
University of Southern California, 1974

Chairman: Professor Metfessel

PROBLEM

The primary purpose of the study was to compile a realistic vocabulary list in English and Spanish to be used in the development of curricular materials for bilingual Spanish/English speaking students in the primary grades. Existing vocabulary studies compiling lists of high frequency words were surveyed. The *Realistic Vocabulary List, English/Spanish* was compiled and translated using words appearing in at least three of these word lists. The *Realistic Vocabulary Test*, English and Spanish forms, was developed from a sampling of words from the list and administered to determine correlations between scores on it and English reading achievement and to determine how well it differentiated between four groups selected on the basis of English and Spanish skills.

DESIGN AND METHODOLOGY

Original dictated stories in English and Spanish were obtained from 1,123 Mexican-American children grades K-3 in the Compton Unified School District. Children were assigned to groups according to their facility with the language used in their dictated stories. Groups were Spanish Only, Predominantly Spanish, English Only, and Predominantly English. Ten boys and ten girls were randomly selected from each group on each grade level K-3 using a table of random numbers yielding a total N for the study of 320. Tests administered were the following: the *Realistic Vocabulary Test*, English and Spanish forms, the *Good-enough Draw-A-Man Intelligence Test*, and the *Cooperative Reading Achievement Test*. A three-way analysis of variance design was used to identify significant differences and correlation coefficients were computed.

FINDINGS

An analysis of the data revealed that the *Realistic Vocabulary Test*, English and Spanish forms and the *Cooperative Reading Achievement Test* distinguished

between language groups and grades; however, these instruments did not distinguish between sexes. The correlational analysis yielded generally low and some negative correlations between the *Realistic Vocabulary Test*, English form and Spanish form with achievement and I.Q. with achievement as measured by the *Cooperative Reading Achievement Test*.

CONCLUSIONS

(1) The *Realistic Vocabulary Test* may be appropriately used as a measure of a child's ability to use the Spanish and English language in terms of vocabulary usage. (2) The *Realistic Vocabulary List, English/Spanish* may appropriately be used as a basic word list for the development of curricular materials for use in the primary grades in the Compton Unified School District. (3) The *Realistic Vocabulary Test* may be administered by other districts to determine the appropriateness of the use of the *Realistic Vocabulary List, English/Spanish* in their given school setting.

RECOMMENDATIONS

It is recommended that: (1) a study be done utilizing words from the *Realistic Vocabulary List, English/Spanish* for an experimental group with a control group where instruction is given without emphasis on using words already known by students; (2) further study be done to establish relationships between the *Realistic Vocabulary Test* and various reading achievement tests.

Order No. 74-14,448, 163 pages.

ORAL ENGLISH LANGUAGE ASSESSMENT OF FIRST GRADE CHILDREN IN BILINGUAL BICULTURAL EDUCATION: EMPHASIS ON PHONOLOGY AND SYNTAX

Bass, Bernice Marie, Ph.D.
The University of Florida, 1975

Chairperson: Dr. Ruthellen Crews

The purpose of this study was to develop a reliable instrument that could be used by teachers and staff in Colorado to assist in the assessment of oral English language, particularly the structure (syntax) and the pronunciation (phonology)

of first grade children in bilingual bicultural education (BBE), and to relate the scores of the instrument to seven variables: a) intelligence, b) the child's age, c) the language spoken in the home, d) ethnicity, e) the number of siblings in the child's family, f) kindergarten attendance, and g) the sex of the child.

Seventy-eight subjects were identified for the study. These subjects were first graders who were participants in BBE programs in Colorado during the school year 1974-75. The children were tested using the researcher-developed instrument, the *Bass Sentence Repetition Task* (BSRT), which was developed on the basis of the contrastive analysis of English and Spanish to determine knowledge of oral English pronunciation and structure and the *Peabody Picture Vocabulary Test* (PPVT) for testing intelligence.

For the purpose of establishing reliability of the test instrument, language samples were collected using the BSRT. These samples were scored by three resource persons according to the rating system developed by the researcher. The Kuder-Richardson Formula 21 was applied to estimate the reliability of each section of the BSRT. The coefficient was .71 for pronunciation and .49 for structure. The combined judgments of three raters had the effect of tripling the length of the test. Applying the Spearman-Brown Formula to estimate a new reliability, a .88 coefficient for pronunciation and a .76 for structure were obtained. These established reliabilities for the BSRT are within acceptable limits for an instrument of this type.

Scores from the BSRT were analyzed using correlation analysis as well as multiple regression analysis to determine their relationships to the predictor variables. Correlation analysis found that intelligence, language spoken in the home, and ethnicity were correlated to the BSRT pronunciation score at the .01 level and the variables of intelligence and language spoken in the home were significant at the .05 level to the BSRT structure score with the sex variable at the .01 level.

The multiple regression analysis found that intelligence as measured by the PPVT to be a contributing factor to the measure of oral English pronunciation and structure as measured by the BSRT. Also the number of siblings in the child's family is considered a contributing factor in the prediction of oral English structure as measured by the BSRT.

Order No. 77-51, 101 pages.

A BILINGUAL ORAL LANGUAGE TEST FOR MEXICAN-AMERICAN CHILDREN

Randle, Janice Ann Whitehead, Ph.D.
The University of Texas at Austin, 1975

Supervisor: Joseph Michel

The Bilingual Oral Language Test is composed of comprehension and productions tests in Spanish and English which are parallel in form and similar in content in both languages. The comprehension tests contain 34 items each, including sentence comprehension items testing noun and verb morphology, pronouns and some syntactic structures, items testing clozeability (ability to guess a word omitted from the sentence) and questions concerning a brief story. The production tests consist of 15 sentence repetition items and a story-telling/conversation section, plus an optional 15 item structured response section. The subject's responses to the production tests are rated according to a scale of acceptability in comparison to adult, native language responses.

The description of the development of the test is preceded by a critical review of a selection of published tests which have been used to measure aspects of language development in bilingual children and by a discussion of the suitability of several approaches to the testing of language in linguistically different child speakers—that is, speakers who are bilingual or who speak a non-standard variety of the language of the test.

The description of the development of the Bilingual Oral Language Test and the experimental test population is followed by a discussion of the validity and reliability studies done on the data collected during the experimental testing. The validity of the experimental tests was determined by correlating test scores with teacher ratings of the subjects and by testing a small sample of monolingual English and Spanish speakers with the same materials. Reliability, estimated by the alpha coefficient calculated for the comprehension tests and for the sentence repetition and story-telling sections of the production tests, was .84 and .81 for the English and Spanish comprehension tests, respectively, and .93 and .89 for the English and Spanish production tests. Revisions were made to shorten the test and to eliminate unproductive or misleading items.

The final chapter is devoted to a discussion of the application of the test to a description of the experimental test population. The sex of the subject was not found to be statistically significant. The age of the subject proved to be statistically significant for Spanish comprehension scores and teacher ratings in Spanish comprehension and production (at .01 level), but age was not significant for any of the English test scores or teacher ratings. The lack of a significant difference in test score means in English when the subjects were

grouped by age was tentatively attributed to the entrenchment of certain non-standard morphological features in the speech of the older children.

The most interesting independent variable proved to be the school attended by the child. When taken as a group, the children from two classes in a school located in the inner city *barrio* had lower scores in English than the children from the school located in a more heterogeneous community located only a few miles away. The former group had significantly higher scores in Spanish on all of the test score and teacher rating categories. The group means on test scores of the first group were nearly equal for English and Spanish, while the test score means for the children at the second school showed a much higher level of performance on English than in Spanish. The differences in Spanish and English language proficiency found in the two groups was attributed to differences in the attitude toward the use of Spanish and English and in the amount of use of the two languages in the family and in the community, rather than to a difference in instruction in the two schools.

The experimental form of the Bilingual Oral Language Test and the revised form of the test, including test illustrations, and scoring guidelines, are included in the appendices.

Order No. 76-14,507, 289 pages.

THE RELATIONSHIP BETWEEN ORAL PROFICIENCY AND ACHIEVEMENT IN A BILINGUAL-BICULTURAL ELEMENTARY SCHOOL

Talbott, Brian Leigh, Ph.D.
University of Idaho, 1976

Chairman: Dr. Robert H. Shreve

This study established linear regression formulas whereby the relationship between oral proficiency and achievement could be measured. The specific objectives were: 1. To determine if there was a relationship between oral proficiency scores, as measured by the *Mat-Sea-Cal Oral Proficiency Tests* and success in school as measured by the *SRA Assessment Survey*. 2. To determine if there was a relationship between oral proficiency scores, as measured by the *Mat-Sea-Cal Oral Proficiency Test*, and achievement at or above grade level as measured by the *SRA Assessment Survey*.

The study examined 413 students in grades one to six. All the subjects attended the Granger School District in Granger, Washington. The subjects involved in the study took the *SRA Assessment Survey* and the *Mat-Sea-Cal Oral Proficiency Tests* in the Spring of 1975. Within each grade level the students were

grouped as follows: 1. *English Mat-Sea-Cal Test*. Included all monolingual and bilingual students that took the English Mat-Sea-Cal test. 2. *Spanish Mat-Sea-Cal Test*. Included all monolingual and bilingual students that took the Spanish Mat-Sea-Cal test. 3. *English and Spanish Mat-Sea-Cal Tests*. Included all bilingual students who took both the Spanish and English Mat-Sea-Cal tests.

The overall Mat-Sea-Cal test score was the predictor variable. The criterion variable was the overall SRA Assessment score. The demographic variables of sex (male or female), grade level (one through six), migrant status (non-migrant and migrant), and ethnic background (Anglo, Mexican American, and Native American) were examined through the analysis of covariance.

Prediction equations comprised of all significant Mat-Sea-Cal and demographic variables were established by the analysis of covariance for each grade level. Partial regression coefficients were calculated for each significant predictor variable and the coefficient of determination, R^2 was computed for each equation.

Eight conclusions were drawn from the data analysis: 1. There was a statistically significant relationship between oral proficiency as measured by the English Mat-Sea-Cal Oral Proficiency Test and overall achievement as measured by the SRA Test. 2. There was no statistically significant relationship between oral proficiency as measured by the Spanish Mat-Sea-Cal Oral Proficiency Test and overall achievement as measured by the SRA Assessment Survey. 3. There was a statistically significant relationship between English oral proficiency and overall achievement for bilingual students when both the English and Spanish Mat-Sea-Cal variables were examined together. This relationship existed in grades one, two and three. 4. There was no statistically significant relationship between English oral proficiency and overall achievement for bilingual students when both the English and Spanish Mat-Sea-Cal variables were examined together in grades four, five and six. 5. There was no statistically significant relationship between Spanish oral proficiency and overall achievement for bilingual students when both the English and Spanish Mat-Sea-Cal variables were examined together. 6. Of the three demographic variables of sex, migrant status, and ethnic background, the only significant variable was ethnic background in grades one and five. 7. In the Granger School District, it was found that a linear relationship existed between low English Mat-Sea-Cal oral proficiency scores and low SRA achievement scores. 8. A range of 11 to 36 percent of the variations in the SRA scores was explained by the linear prediction equations. This meant that 11–36 percent of the overall SRA score was attributed directly to language proficiency.

Order No. 76-20,853, 103 pages.

INTELLIGENCE

THE RELATIONSHIP BETWEEN BILINGUALISM AND PERFORMANCE ON A LINGUISTIC TYPE INTELLIGENCE TEST

(Publication No. 9976)

Blair John Kolasa, Ph.D.
University of Pittsburgh, 1954

This study attempted to discern the relationship between bilingualism and performance on a linguistic type intelligence test at the higher educational and age levels. A group of 237 high school and college students were classed as bilinguals on the basis of defined measuring devices. Individuals were noted as bilingual if they received positive scores both on the Hoffman Bilingual Schedule, a measure of bilingual background or environment, and on the Polish Vocabulary Test, a device which measures actual performance in Polish, or, as noted in this study, bilingual achievement. The second language in the case of each bilingual was Polish, and all subjects grew up within this specific language environment. The socio-economic status of each individual was gauged by the Sims Score Card for Socio-Economic Status, and the level of intelligence was measured by the Q subtest of the ACE Psychological Examination. These four variables were the independent variables noted and measured. The dependent variable was performance on the L subtest of the ACE.

The relationship of each variable to the other was analyzed through the use of the technique of analysis of variance. The null hypothesis of no difference between groups of high and low bilinguals was tested. In addition, intercorrelations among all variables were found.

A total of 32 individuals were found to be monolingual by virtue of their receiving zero scores on both the measure of bilingual environment and that of bilingual achievement. This group was compared with the bilingual group in performance on the dependent variable. The analysis of variance technique was utilized in the comparison of the two groups and also in analysis of variance using matched groups. The differences between groups were thus treated to test the null hypothesis of no difference between the two groups, bilinguals and monolinguals.

A highly significant relationship was found between the level of intelligence (quantitative) and performance on the linguistic type intelligence test, the L subtest of the ACE. Socio-economic status did not influence performance on

the L subtest, nor was the L performance dependent upon the degree of bilingualism; individuals who were highly bilingual did neither better nor more poorly on the L subtest than those who were moderately bilingual.

There was a slight difference between monolinguals and bilinguals in performance on the L subtest, but this difference fell short of being a significant one. More significant was the relationship between intelligence and linguistic performance, as noted above.

Neither aspect of Bilingualism, then, at this higher age and educational level, seems to be of influence in performance on a linguistic type intelligence test.

100 pages. \$1.25. MicA54-3566

THE PERFORMANCE OF BILINGUAL NIGERIAN STUDENTS ON VERBAL AND NONVERBAL TESTS OF INTELLIGENCE

(Order No. 65-14,016)

Emmanuel Ayotunde Yolooye, Ph.D.
Columbia University, 1965

Studies concerning the performance of bilingual children on intelligence tests standardized in the environment of their second language have in general yielded two kinds of results. Most studies have indicated that bilingual children make better scores on nonverbal tests than on verbal tests. A few studies, mainly those using Jewish samples show that the bilingual children do equally well on both kinds of tests. On the basis of these findings some researchers have recommended the use of nonverbal rather than verbal tests for the educational guidance of bilingual children.

As a background for the present study, it was noted that the bilingual samples used for most of the reported studies lived in the cultural environment of their second language. It was reasoned that for bilingual samples who lived in the cultural environment of their first language, nonverbal tests also contain elements which constitute handicaps. It was further reasoned that at lower levels of education, the language handicap on verbal tests outweighs the handicap on nonverbal tests. However, schooling reduces the language handicap more rapidly than it reduces handicaps on nonverbal tests; therefore at higher levels of education, the bilingual children may actually perform better on verbal than nonverbal tests.

It was also reasoned that the more useful test for educational guidance in such bilingual schools would be the one that correlated better with school marks.

The study was therefore designed to test the following hypotheses:

1a. The type of intelligence test on which performance is better depends on educational level.

1b. Mean verbal as well as nonverbal IQs increase from the lowest grade to the highest.

1c. Mean verbal IQs increase more rapidly than mean nonverbal IQs from the lowest to the highest grade.

2. Verbal intelligence scores correlate higher with school marks than do nonverbal intelligence scores.

The sample consisted of native Nigerian secondary school boys in forms 1, 3, and 5 from four schools in Ibadan. Nigerian languages, mainly Yoruba, are their first languages, and English is their second. The larger cultural environment is Nigerian.

The verbal and nonverbal batteries of the multilevel edition of the Lorge-Thorndike tests were administered to the boys. Level C was administered to form 1, Level E to form 3, and Level G to form 5.

School marks in the preceding terminal examinations were collected for the sample. Also, information on five background variables; boarder-dayboy status, urban-rural background, father's education, mother's education, and father's occupation were collected by means of a questionnaire.

The pattern of performance in the intelligence tests was the same in all four schools. In forms 1 and 3, mean nonverbal IQs were significantly higher than mean verbal IQs. In form 5, the reverse was true.

Mean verbal IQs increased significantly from first to fifth form. Mean nonverbal IQs showed a nonsignificant decrease. Mean standard scores showed a progressive increase for both batteries, but verbal scores showed the greater increase.

Verbal and nonverbal intelligence scores correlated to the same extent with school marks.

Of the background variables, only father's education and father's occupation were significantly related to test performance, and the correlation between the two variables was .66. The effect of the background variables tended to be greater on verbal than nonverbal scores, although the effects were generally in the same direction.

It was concluded that, while education reduced handicap on verbal tests, it probably did not reduce handicaps on nonverbal tests. Selection at entrance, and progressive selection in schools may also have affected the results. The study does not provide enough evidence to indicate superiority of one kind of test over the other with respect to educational guidance.

Microfilm \$3.00; Xerography \$4.20. 80 pages.

VERBAL AND PERFORMANCE TEST SCORES IN BILINGUAL CHILDREN (RESEARCH STUDY NO. 1)

(Order No. 66-12,168)

Michael John Fitch, Ed.D.
Colorado State College, 1966

The purpose of this study was to evaluate the effects of increased exposure to the English language on verbal and nonverbal measures of intelligence in bilingual children. A group of twenty-five first-second grade bilingual students was matched with twenty-five fifth-sixth grade bilingual students according to sex, socio-economic status, and IQ. The IQ scores were taken from group tests administered in the first grade for both groups. The children had not attended kindergarten and spoke Spanish as their primary language. A trained psychological examiner administered the *Ravens Colored Progressive Matrices* and the *Wechsler Intelligence Scale for Children*, in that order, to each child in both groups. Fifteen judges evaluated the degree to which they anticipated scores on each *WISC* subtest would be raised by increased exposure to English.

Three basic concepts were investigated. First, without a clearly dominant language to communicate concepts, first-second grade bilingual children are handicapped on verbal tests of intelligence. Therefore, at the younger age levels, nonverbal tests seem to be the most appropriate measures of intelligence. It was anticipated that with longer exposure to the English language bilingual children would increase their facility with English. It was expected that verbal and nonverbal measures of intelligence would measure more nearly the same thing and correlate more highly at the older grade level. Thus, it was predicted that the *WISC* Verbal scale would correlate more highly with the *WISC* Performance and *Ravens* at the fifth-sixth grade level than at the first-second grade level. The *WISC* Verbal and Performance correlation was .65 for the fifth-sixth graders and only .33 for the first-second graders. The correlation of .65 was significant at the .05 level but the correlation of .33 was not. However, the *Ravens* correlated higher with the *WISC* Verbal scale at the first-second grade level than at the fifth-sixth grade level. Thus, the findings are consistent.

The second concept studied was that, as bilingual children develop increased facility with English, verbal scores of intelligence should approach nonverbal scores, thus reducing the disparity between the two scores. The mean difference between the Verbal and Performance scales was calculated for both groups and the resulting *t* test between the two means showed that the disparity was significantly greater for the first-second grade group than for the fifth-sixth grade group.

The third concept tested suggested that those portions of intelligence tests which are most positively influenced by language facility would show the greatest improvement for bilingual children, as their exposure to English is increased. Of the ten subtests administered, only Vocabulary showed a significant difference favoring the fifth-sixth grade students, yet all five verbal subtests were in the predicted direction. The Spearman Rho between the predicted order of difference with exposure to English and actual order of differences was .85, indicating that those subtests thought by the judges to be most positively influenced by exposure to English by trained WISC examiners tended to show the greatest difference between the two groups.

Microfilm \$3.00; Xerography \$3.80. 70 pages.

BILINGUALISM AS IT RELATES TO INTELLIGENCE TEST SCORES AND SCHOOL ACHIEVEMENT AMONG CULTURALLY DEPRIVED SPANISH-AMERICAN CHILDREN

(Order No. 68-1131)

Robert Rogers Galvan, Ph.D.
East Texas State University, 1967

Adviser: Dr. B. J. Steelman

PURPOSE OF THE STUDY

The purpose of this study was to investigate (1) the relationship between intelligence test scores and school achievement as they relate to bilingualism among culturally deprived children of Spanish-American parentage, and (2) the possibilities of more accurately evaluating the intelligence of bilingual children.

PROCEDURE

The children selected for this study were one hundred Spanish-American children from the third, fourth, and fifth grades of a Dallas, Texas, elementary grade school. The children chosen to participate were selected primarily on the basis of their hereditary background with the study being limited to only those

children born of Spanish-American parentage in which the primary language spoken at home was Spanish.

Each of these one hundred culturally deprived bilingual Spanish-American children was given an intelligence test in English and was also given the same intelligence test translated into Spanish. The Wechsler Intelligence Scale for Children was used, and verbal, performance, and full scale scores in both English and Spanish were derived. All tests were then scored and interpreted, and these scores plus other pertinent data were treated statistically by the use of an IBM computer and a Monroe calculator.

The experimental situation was designed to test the following hypotheses:

Hypothesis 1. Bilingual culturally deprived Spanish-American children will score lower on the Wechsler Intelligence Scale for Children when administered in English than when administered in Spanish.

Hypothesis 2. There will be a significant correlation between the scores derived from the verbal section of the English version of the Wechsler Intelligence Scale for Children and those derived from the verbal section of the Spanish translation of the Wechsler Intelligence Scale for Children.

Hypothesis 3. There will be a significant correlation between the scores derived from the performance section of the English version of the Wechsler Intelligence Scale for Children and those derived from the performance section of the Spanish translation of the Wechsler Intelligence Scale for Children.

Hypothesis 4. There will be a significant correlation between the scores derived from the English version of the Wechsler Intelligence Scale for Children and those derived from the California Achievement Test.

Hypothesis 5. There will be a significant correlation between the scores derived from the Spanish version of the Wechsler Intelligence Scale for Children and those derived from the California Achievement Test.

FINDINGS

Hypothesis 1 was supported by the comparison of Full Scale I.Q. scores derived from the English and Spanish translation of the Wechsler Intelligence Scale for Children.

Hypothesis 2 was rejected by the results of the experiment. Pearson's product-moment coefficient of correlation between the verbal intelligence test scores in English and verbal intelligence test scores in Spanish indicated a correlation of .53.

Hypothesis 3 was supported by the results of the experiment. A Pearson's product-moment coefficient of correlation between the performance section test scores in English and the performance section test scores in Spanish indicated a correlation of .97.

Hypotheses 4 and 5 were rejected by a Person's product-moment coefficient

of correlation between verbal intelligence test scores in English and Spanish and California Achievement Test Scores which revealed a correlation of .46 for the Spanish and .52 for the English.

CONCLUSIONS AND RECOMMENDATIONS

Conclusions reached showed that bilingual culturally deprived Spanish-American children scored better on the Wechsler Intelligence Scale for Children when administered in Spanish than when administered in English, with the verbal section having a greater increase in points than the nonverbal or performance section. The study also indicated that the use of achievement tests for determining school achievement was generally not a satisfactory measure of bilingual children. These results thus serve to point out the inadequacy of using verbal tests of intelligence when testing bilingual children, and it can be seen that the use of nonverbal tests of intelligence might serve as a better indicator of pupil functioning and possible school success than highly verbal tests.

Microfilm \$3.00; Xerography \$4.60. 88 pages.

AN INVESTIGATION OF THE RELATIONSHIP BETWEEN INTELLIGENCE AND READING ACHIEVEMENT FOR VARIOUS SAMPLES OF BILINGUAL SPANISH-SPEAKING CHILDREN

Norman Eliot Pomerantz, Ed.D.
New Mexico State University, 1970

Supervisor: Dr. Ross E. Easterling

PROBLEM

The purpose of this study was to investigate the relationship between intelligence scores (performance on the California Test of Mental Maturity (CTMM) and reading achievement scores for various samples of bilingual Spanish-speaking children. This study evaluated the ability of the CTMM to predict reading achievement scores for different categories of bilingual third graders. The predictive validity of the CTMM was investigated in an effort to (a) discover the combination of scores yielding the maximum correlation with three reading achievement scores, and (b) determine if the CTMM could discriminate between achieving and nonachieving readers.

DESIGN

The study setting was Las Cruces School District No. 2, Las Cruces, New Mexico.

The sample included 159 third graders placed in one or more of 18 subgroups for statistical analysis. Scores were available from three CTMM administrations and one administration of the Metropolitan Achievement Tests (MAT). The CTMM's were administered in October, 1967, April, 1968, and April, 1970, and the MAT in May, 1970.

To determine the CTMM's predictive efficiency, zero-order and multiple correlation coefficients were calculated using CTMM and MAT scores. The significance of obtained correlation coefficients and of differences between correlations for boys versus girls and achievers versus nonachievers was determined using Fisher's z transformations. Also the significance of differences among multiple correlation coefficients calculated from the three CTMM administrations was tested. Significant regression equations with accompanying standard errors of estimate and variances were calculated and reported.

RESULTS

(1) Zero-order correlation coefficients between CTMM and MAT scores ranged from $-.276$ to $.848$. Magnitude and number of significant correlations varied for different samples. (2) Few significant differences in zero-order correlation coefficients were found among boys versus girls and achievers versus nonachievers. (3) Of 162 multiple correlation coefficients, 81, ranging from $.451$ to $.918$, were found significant. Significant multiple correlation coefficients were found for 11 of the 18 sample groups. (4) Few significant differences among multiple correlation coefficients were found for boys versus girls and achievers versus nonachievers. (5) Only one significant difference of 162 comparisons between multiple correlation coefficients was found for different CTMM administrations.

CONCLUSIONS

(1) Zero-order and multiple correlation coefficients indicated that the CTMM is a valid instrument for predicting reading achievement for the Spanish-speaking bilingual children investigated in this study. (2) For predictive purposes, the CTMM can be used, with caution. Significant regression equations can be of some value in predicting reading achievement for bilingual Spanish-speaking students. (3) Due to the magnitudes of the standard errors of estimates, it appears that the CTMM cannot significantly differentiate between those students who will become achievers and those who will become nonachievers.

(4) The few significant differences between correlation coefficients for achievers versus nonachievers indicated that the CTMM cannot differentiate achievers from nonachievers in specific abilities. (5) Lack of significant differences between multiple correlation coefficients for boys versus girls and achievers versus nonachievers suggested that the CTMM is not a better predictor of reading achievement when sex and dichotomous achievement levels are considered. (6) Nonsignificant differences among the multiple correlation coefficients for different CTMM administrations indicated that no one administration of the CTMM was the best predictor of reading achievement. (7) The stability of the multiple correlation coefficients over the first three grades suggested that the CTMM had some value in identifying potential first grade reading problems. (8) Due to the magnitudes of the standard errors of estimate, caution should be exercised in using the regression equations for diagnosing potential reading problems. (9) The variances indicated that the CTMM global scores accounted for most of the variance related to reading achievement, but the CTMM mental factor scores did add substantially to the total predictive variance in a few instances.

Order No. 71-6432, 123 pages.

A COMPARISON OF SELECTED INTELLIGENCE SCALES WITH BILINGUAL CHILDREN

Stanley Frank Vasa, Ed.D.
The University of Nebraska, 1971

Adviser: Howard E. Tempero

The purpose of this study was to determine the relative merits of the Wechsler Intelligence Scale for Children (WISC) and Hiskey-Nebraska Test of Learning Aptitude (H-NTLA) in obtaining measurements of intelligence of Mexican-American bilingual children. Two randomly selected cross-sectional groups of subjects were chosen for the study. Group I was composed of twenty first-grade bilingual Mexican-American children ranging in age from six years, four months through six years, eleven months. Group II included twenty bilingual Mexican-American children enrolled in grades three, four, and five between the ages of ten years, one month through ten years, eleven months. All subjects were enrolled in public schools in Scotts Bluff County, Nebraska. The researcher administered the WISC and the H-NTLA randomly to each child in two settings. An adaptation of the Hoffman Bilingual Schedule was utilized to determine the degree of bilingualism of each subject.

Two basic concepts were investigated. First, a comparison was made between the deviation IQ of the H-NTLA, the Verbal IQ, the Performance IQ, and the Full Scale IQ of the WISC. An analysis of variance test was applied to each group. The null hypotheses were that there would be no differences among the four or between any two scales. The Scheffé test was applied to the means of the four measures for Group I. A statistically significant difference was found at the .01 level of confidence between the deviation IQ of the H-NTLA and the Verbal IQ of the WISC and between the Performance IQ of the WISC and the Verbal IQ of the WISC. No statistically significant differences were noted for Group II. However, a trend was noted that the performance measures of intelligence were consistently higher than the verbal section of the WISC.

The second concept studied was to what degree the various individual subtests of the H-NTLA correlated with subtests of the WISC. The results were inconsistent and only twenty-two of the 160 possible combinations were correlated significantly. There was a trend for the performance subtests of the WISC to correlate at a higher level than verbal subtests of the WISC with the H-NTLA.

The results of the study indicated that the utilization of performance measures of intelligence would be more appropriate than verbal measures of intelligence with young Mexican-American bilingual children (Group I). In addition, the difference between the verbal and performance measures of intelligence tended to decline with age. However, the mean deviation IQ of the H-NTLA and the Performance IQ of the WISC decreased 8.5 and 5.25 points, respectively, from Group I to Group II.

Order No. 71-19,523, 63 pages.

THE DEVELOPMENT OF NORMS FOR BILINGUAL FIRST-, SECOND-, AND THIRD-GRADE CHILDREN'S RESPONSES TO THE HAND TEST AND PEABODY PICTURE VOCABULARY TEST

Faye Tucker Puthoff, Ed.D.
The University of Oklahoma, 1972

Major Professor: Omer J. Rupiper

An extensive literature research indicated that further study of the *Hand Test* was needed. This study was designed to determine whether or not relationship

existed between raw scores on the *Peabody Picture Vocabulary Test* and responses on the *Hand Test*. The study was also conducted to provide norms for bilingual elementary school children.

All of the 312 subjects selected for the study were bilingual. The subjects were rural first, second, and third grade children and comprised the total population of the primary grades in three elementary schools located in a cotton farming area of West Texas.

For the study, the subjects were separated into male and female groups at each of the three grade levels. An item analysis of each subject's responses was made. The PATH scores on the *Hand Test* was used in determining the relationship between raw scores on the *Peabody Picture Vocabulary Test* and the *Hand Test*. Spearman's rank-order correlation was used to test for significant correlations. Medians and quartile points were calculated for each scoring category in each group.

Implications for further study and research included suggestions for the development of more representative norms for the *Hand Test*. Additional study should include research on qualitative responses.

Order No. 72-19,751, 68 pages.

SOME EFFECTS OF BILINGUALISM UPON INTELLIGENCE AND READING TEST PERFORMANCE OF AMERICAN-BORN CHILDREN: A COMPARATIVE STUDY

Nicholas E. Vloutidis, Ph.D.
University of Delaware, 1972

The purpose of this study was (a) to investigate some effects of bilingualism upon intelligence test and reading test performance of American-born children of different language groups, and (b) if such effects exist, to analyze and compare them by school grades and language groups. A sample of 160 children of Greek, Italian, Polish, and American parentage was randomly selected from a population of private and public schools in Wilmington, Delaware.

All the subjects were administered (a) the *California Short-Form Test of Mental Maturity* (levels 1, 2, 3); (b) the *Comprehensive Test of Basic Skills* (sections: reading vocabulary and reading comprehension); and (c) the *Hoffman Bilingual Schedule* to measure the extent of the subjects' bilingual background or environment.

Eleven null hypotheses were tested to determine (a) the mean difference in total I.Q. (language and non-language I.Q.) between monolingual and bilingual subjects; (b) the mean difference in total reading test performance (reading vocabulary and reading comprehension) between monolingual and bilingual subjects; (c) the relationship among the subjects' bilingual, language, and non-language I.Q. scores; and (d) the significance of main and interaction effects for bilingualism, total I.Q., and language groups upon total reading performance. Coefficients of correlation, t tests, and analyses of variance were used to test the hypotheses stated.

The following findings were obtained:

1. There was a statistically significant correlation between bilingual and language I.Q. scores for (a) third grade Greeks; (b) fourth grade Italians; (c) third and fourth grade Italians combined; and (d) seventh and eighth grade American subjects combined.
2. There was a significant mean difference in total reading scores between fourth grade monolingual and bilingual subjects.
3. There was a significant main effect for total I.Q. upon reading test performance of third, fourth, and seventh and eighth grade subjects.
4. There was no significant mean difference in total I.Q. scores between monolingual and bilingual subjects of language groups at four school grades combined.
5. There was no significant mean difference in total I.Q. scores between monolingual and bilingual third, fourth, and seventh and eighth grade subjects.
6. There was no significant correlation between bilingual and language I.Q. scores obtained by subjects of language groups and school grades combined.
7. There was no significant correlation between bilingual and non-language I.Q. scores obtained by subjects of language groups and school grades combined.
8. There was no significant correlation between bilingual and non-language I.Q. scores obtained by subjects of language groups at four school grades.
9. There was no significant mean difference in total reading scores between third, and seventh and eighth grade monolingual and bilingual subjects.

The conclusions stemming from the findings were presented and the implications for teaching foreign languages and for further research were stated.

Order No. 72-20,527, 84 pages.

TELEVISED AND CONVENTIONAL ADMINISTRATIONS OF OBJECTIVE SCALES ON A DISADVANTAGED BILINGUAL POPULATION

James F. Curley, Ph.D.
St. John's University, 1973

The current investigation was concerned with the comparative effects of televised and conventional testing on a sample of bilingual disadvantaged children. The primary purpose of this study was to determine whether televised testing was superior to the conventional administration of standardized scales. An equally important aspect of this research was concerned with the anticipated improvement of test administration in the native language of the sample under study as compared with the standard English administration. On the basis of these two goals it was predicted that the combined effects of televised testing of bilingual subjects would be significantly superior to the non-televised English mode of presentation. Several studies have demonstrated the significance of the televised mode over the conventional form of testing. This significance can best be attributed to the enhanced attention, interest, novelty and motivational level of disadvantaged children. The literature also carefully documents the improved performance of bilingual subjects assessed on scales in their native language. In addition, bilingual children have performed better on nonverbal or performance scales where there is minimal dependency on verbal content. Under these conditions the bilingual sample more likely approximate the performance of the normative group.

The sample consisted of three hundred and twenty 3rd and 4th grade students representative of a disadvantaged population in a predominately Puerto Rican community. An equal number of male and female subjects were selected on the basis of grade level, social class, and fluency in the Puerto Rican dialect. In order to compare the effect of language as a variable the sample was equally divided: one group was to be assessed in their native language, that is, the Puerto Rican dialect, and the other group was to be tested in the English language. This split would yield the comparative effects of the language variable. The two main groups were further subdivided into those receiving televised and conventional modes of testing. This subdivision would result in the comparative effects of televised and non-televised testing within the bilingual groupings. The three scales used were the Cattell Culture Fair Test, The Peabody Picture Vocabulary Test, and the Raven's Coloured Progressive Matrices. For the Spanish-speaking group it was necessary to translate the three scales into the Puerto Rican dialect.

The purpose of this study was to discover the effect of televised testing procedures on subjects representing a bilingual population. Three 4-way analyses of variance and subsequent t-tests were computed to analyze the data. The results revealed that the language factor was a significant factor in test results, i.e., the bilingual subjects as a group tested in the Puerto Rican dialect scored significantly higher, under both modes of presentation, on the Cattell Culture Fair Test and the Peabody Picture Vocabulary Test. No significant differences were noted on the language variable, under either mode of presentation, using the Raven's Coloured Progressive Matrices. The mode of presentation was found to be a significant factor in that televised administrations resulted in higher scores than did teacher administered tests of the three instruments. The sex variable was significant on the Peabody Picture Vocabulary Test alone, where boys attained significantly higher scores. The grade variable was a significant factor since 4th graders scored in the expected superior direction on all three scales.

The hypothesis that the non-televised standardized scales administered in the Puerto Rican dialect would result in significantly superior performance to the non-televised English presentation was upheld for the Cattell Culture Fair Test and the Peabody Picture Vocabulary Test. This hypothesis was not supported for the Raven's Progressive Matrices.

The hypothesis that the televised standardized scales administered in the Puerto Rican dialect would result in significantly superior performance to the televised English presentation was supported for the Cattell Culture Fair Test and the Peabody Picture Vocabulary Test. The findings for the Raven's Progressive Matrices did not uphold this hypothesis.

The hypothesis that the Puerto Rican subjects tested in English would score significantly higher by means of the televised presentation than the non-televised administration was supported for all three scales.

The hypothesis that Puerto Rican subjects tested in Spanish would score significantly higher by means of the televised presentation than the non-televised administration was upheld for all three tests.

Television testing appears to highly recommend itself because of the savings both in time and finances and its greater adherence to standardization norms. This mode of assessment may prove to be truly beneficial to the bilingual student whose potential can be more effectively assessed as a result. This represents the first step in providing an equal opportunity for all children by adjusting the curriculum to their needs.

Order No. 73-29,945, 120 pages.

TELEVISED AND RECOGNIZED ADMINISTRATIONS OF OBJECTIVE TESTING ON A DISADVANTAGED BILINGUAL PRIMARY SCHOOL STUDENT POPULATION

Bianchino, Francis Stephen, Ph.D.
United States International University, 1975

Chairman: Lawrence Guido

THE PROBLEM

The problem of the study was to ascertain the comparative effectiveness of televised objective testing and conventional administration on a bilingual disadvantaged primary school student population.

Three main objectives needed to be achieved in order to accomplish the purpose of the study: 1. The population was to consist of subjects who revealed an understanding as well as speaking facility in the Puerto Rican dialect and English language. 2. Superior performance would be revealed on the televised tests administered in the Puerto Rican dialect. 3. The superiority of televised testing over conventional testing with a disadvantaged bilingual population would be demonstrated.

The importance of the study derives from the failure of schools to respond to the educational needs of the disadvantaged bilingual students which results in academic failure, demonstrated by low reading scores, high dropout rate, and barriers to entry into meaningful employment.

METHOD

All data were secured from the employment of three scales: The Cattell Culture-Fair Test, the Peabody Picture Vocabulary Test, and the Raven Coloured Progressive Matrices. Hypotheses were that: 1. the non-televised standardized scales administered in Spanish will result in significantly superior performance to the non-televised English presentation; 2. the televised standardized scales administered in Spanish will result in significantly superior performance to the televised English presentation; 3. the Puerto Rican subjects tested in English will score significantly higher by means of the televised presentation than the non-televised administration; 4. Puerto Rican subjects tested in Spanish will score significantly higher by means of the televised presentation than the non-televised administration.

Subject groups were formed on the basis of a sample population consisting of 320 male and female subjects, equally divided according to sex at grade

levels three and four, representing a homogeneous bilingual Puerto Rican population.

Differences between means for the various groups were an analysis of variance technique, evaluating the effects of the independent variables of language, mode of presentation, sex and grade. T-tests were used to locate specific significance in the data. Statistical computation of data was based on raw scores and verified by IBM computer systems.

RESULTS

Analysis of data revealed that the language factor was a significant factor in test results. No significant differences were noted on the language variable, under either mode of presentation, using the Raven Coloured Progressive Matrices. The mode of presentation was found to be a significant factor in that televised administration resulted in higher scores than did teacher-administered tests of the three instruments. The sex variable was significant on the Peabody Vocabulary Test alone, where boys attained significantly higher scores. The grade variable was a significant factor since fourth-graders scored in the expected superior direction on all three scales.

From the results, four main conclusions were drawn. They are that:

1. The non-televised standardized scales administered in the Puerto Rican dialect resulted in significantly superior performance to the non-televised English presentation. This was upheld for the Cattell Culture-Fair Test and the Peabody Picture Vocabulary Test. This hypothesis was not supported for Raven's Progressive Matrices.

2. The televised standardized scales administered in the Puerto Rican dialect resulted in significantly superior performance to the televised English presentation. This was supported for the Cattell Culture-Fair Test and the Peabody Picture Vocabulary Test. The findings for Raven's Coloured Progressive Matrices did not uphold this hypothesis.

3. The Puerto Rican subjects tested in English scored significantly higher by means of the televised presentation than the non-televised administration. This was supported for all three scales.

4. Puerto Rican subjects tested in Spanish scored significantly higher by means of the televised presentation than the non-televised administration. This was upheld for all three tests.

Order No. 75-25,959, 129 pages.

BICULTURAL SOCIALIZATION AND THE MEASUREMENT OF INTELLIGENCE

Joseph, Andre, Ph.D.

Georgia State University — School of Education, 1975

Chairman: Dr. John McDavid

PURPOSE

The purpose of this investigation was to show that IQ tests represent a special kind of measurement instrument: they are really only systems of classification of individuals with reference to others. Thus with such classification systems it is impossible to interpret a deficiency reflected by test scores in other than a socio-cultural frame of reference. The racial-ethnic controversy has in the past three or four years become of major concern in scientific-academic-educational settings and much research challenging traditionally held assumptions are being reviewed. As a result of these concerns many "culture specific" tests of intelligence are being devised and standardized in other than the traditional White middle-class community. The intent of this study then was to show that all "intelligence" tests are not only culturally specific — but are biased in favor of the particular segment within the larger culture for which they were devised and standardized (i.e., The California Short Form Test of Mental Maturity is biased in favor of the 'White middle-class population over all other groups — White and Black middle- and lower-class; and the Black Intelligence Test of Cultural Homogeneity, BITCH, is biased in favor the Black lower-class population over all other groups — Black or White middle- and lower-class).

METHODS AND PROCEDURES

The subjects for this study were 150 Black and White elementary school children between the ages of 12 and 14 who were seventh graders in a large Southeastern Urban School System (from both "traditional and Middle School" settings). Three female students registered in undergraduate courses at Georgia State University who had completed research courses and were given instructions by this author, administered both the California Test and the BITCH to the same group of students on two occasions (Tuesday mornings between 8:30 and 12:00 p.m.) after a fourteen day interval. This researcher collected data of a socioeconomic nature from each group of students by using a Socioeconomic Identification Scale which he devised and assigned subjects to one of three socioeconomic levels by way of mathematical calculations congruent with Sims Social Class Identification Scale (1952).

RESULTS

A mixed design: repeated measures was used to statistically analyze the data, with Scheffé's (S) Method of Multiple Comparison used as a test for trends. The results indicated that indeed traditional tests of intelligence are specific for certain ethnic-socioeconomic groups within a larger culture (i.e., The California Short Form Test of Mental Maturity is biased in favor of White middle-class populations over White lower- and Black middle- and lower-class populations), but that the BITCH, although biased in favor of the Black ethnic culture was not biased in favor of lower-class Black populations.

CONCLUSION

Based on the analysis of the data the major conclusions of this study were:

1. The California Short Form Test of Mental maturity is biased in favor of White middle-class populations over all other populations (White lower and Black middle and lower) and that the California Test is biased toward White ethnic values over Black ethnic values.
2. The Black Intelligence Test of Cultural Homogeneity (BITCH) is biased in favor of Black middle-class populations over other populations (Black lower and White middle and lower) and that the BITCH is biased toward Black ethnic values over White ethnic values.
3. If Black Intelligence tests are to be devised for the lower socioeconomic ghetto Black, then those tests should be composed of questions with both stems and distractors taken from the "Black experience"; and further should be orally administered.

Order No. 75-29,904, 195 pages.

III. LANGUAGE

ACQUISITION AND DEVELOPMENT

RELATIONSHIP BETWEEN BILINGUALISM AND INTELLIGENCE FOR STUDENTS IN U.S. DEPENDENTS SCHOOLS

Shawley, Nancy Lynn, Ph.D.
The University of Michigan, 1975

Co-Chairmen: Delmont K. Byrn, Don K. Harrison

The purpose of this study was to investigate the relationship between intelligence test scores and foreign language background. The sample was composed of 1377 students in grades four, seven, nine and eleven from five U.S. Dependents Schools in Germany. The Lorge-Thorndike Intelligence Tests were administered to all the students in the sample. Language background was determined on the basis of a questionnaire which was developed for this study. Students in grades four and seven also took the Iowa Tests of Basic Skills, and those in grades nine and eleven took the Tests of Academic Progress. Grade point averages were calculated for students in grades nine and eleven, and scores on the Preliminary Scholastic Aptitude Test were obtained for about half of the eleventh grade students.

The sample was divided into four language groups. Students who spoke only English before starting school and whose parents were both American were classified in group 1. Those who had at least one foreign parent, but who also spoke only English before starting school were placed in group 2. Group 3 contained students who had at least one foreign parent and who were bilingual before starting school. Group 4 was made up of students who had at least one foreign parent and who did not learn English until after they entered school. The test data were statistically analyzed and comparisons were made between the mean scores for the various language groups.

The results of this study showed that there were no significant differences between the verbal or the nonverbal mean scores on the Lorge-Thorndike Intelligence Test for the language groups in this sample. All of the language groups at each grade level had higher mean nonverbal IQ scores than mean verbal scores, and the majority of these differences were significant for both the monolingual and the bilingual students. The differences between mean verbal and nonverbal scores were not significantly less at the upper grade levels than at the lower ones for the bilingual students.

For the ninth and eleventh grade students, the total IQ scores had a higher correlation with grade point averages than the nonverbal IQ scores did. For the ninth grade bilingual students, the total IQ scores correlated more closely with grade point averages than the verbal IQ scores did. For the eleventh grade bilingual students, the verbal IQ scores had the higher correlation with grade point averages. None of the differences between verbal and total IQ correlations coefficients were significant.

The differences between the mean scores of the various language groups on the Iowa Tests of Basic Skills and the Tests of Academic Progress were small. Lanugage group 4 scored significantly higher than any of the other groups on the arithmetic sub-test at the fourth grade level. None of the other differences were significant.

The mean verbal score on the Preliminary Scholastic Aptitude Test for the bilingual students who had not learned English until after starting school was significantly lower than the mean scores of groups 1 and 3. The mean PSAT math scores of the various language groups were not significantly different.

An analysis of the data on the basis of socioeconomic status showed a positive relationship between test scores and socioeconomic status, with occasional overlapping between adjacent groups. On several of the tests the mean scores for the two lowest socioeconomic groups were significantly lower than the scores for the two highest groups.

For the bilingual population in this study, language background was not significantly related to performance on either intelligence or achievement tests (with the exception of the verbal section of the PSAT). There was a positive relationship between socioeconomic status and test scores.

Order No. 76-9513, 147 pages.

THE PHONOLOGICAL SYSTEM OF A BILINGUAL CHILD

(Order No. 61-6930)

Heles W. Contreras, Ph.D.
Indiana University, 1961

The study is divided into two parts, containing a chronological description of the child's phonology and a discussion of general problems respectively.

In Part I, the period under study, ages 1;0 to 2;0 is divided into eleven states, for each of which a complete phonological analysis is given, including segmental phonemes and their allophones, distinctive features, syllabic types, and substitutions.

The general problems dealt with in Part II are: a) acquisition of segmental phonemes and distinctive features; b) stress; c) syllabic types; d) substitutions; and e) bilingualism. Of these, a) and d) are given considerably more attention than the others.

The conclusions concerning the acquisition of segmental phonemes and distinctive features indicate that a scheme based on Roman Jakobson's ideas ("Les lois phoniques du langage enfantin et leur place dans la phonologie generale," in N. S. Trubetzkoy, *Principes de Phonologie*, Paris 1949) seems most appropriate to account for them. That is, there is a fairly fixed order of appearance of distinctive features which goes from the grossest to the finest phonetic discriminations.

As for substitutions for the phonemes of the model languages, the conclusions are:

1) Under similar stress conditions, a consonant tends to appear as coda later than as onset;

2) Under similar stress conditions, substitutions for one-consonant onsets are more accurate than substitutions for one-consonant codas;

3) Under similar stress conditions, correct substitutions tend to be made earlier for onsets than for codas;

4) Correct substitutions tend to be made earlier for onsets and codas of stressed syllables than for the corresponding onsets and codas of unstressed syllables;

5) Substitutions for consonant clusters seem to follow the general rule that the more vowel-like a consonant is, the more likely it is to drop in a cluster. Thus, liquids drop in combination with any consonant, nasals in combination with stops and fricatives, fricatives drop in combination with stops. Some qualification might be necessary regarding the relative position of the consonants in a cluster, and their position with respect to the other elements of the syllable and to stress. A special rule seems to apply to clusters of dental or alveolar consonants, which says that either member can drop. Thus, /t/ becomes either /1/ or /t/, /td/ becomes either /1/ or /d/, /st/ becomes either /s/ or /t/, etc. In clusters of consonants of the same class, like stop plus stop or liquid plus liquid, the first member is dropped;

6) Single unstressed vowels are acquired at the same time or later than the corresponding stressed vowels;

7) Substitutions for single stressed vowels are in general more accurate than substitutions for the corresponding unstressed vowels;

8) Falling diphthongs (e.g., ai, ei, oi) are acquired earlier and are reproduced more accurately than the corresponding rising diphthongs (e.g., ia, ie, io);

9) Quite a number of substitutions show the influence of neighboring phonemes in the syntagmatic chain, in the form of assimilation, dissimilation or metathesis. The most frequent of these processes is assimilation. Some relation seems to exist between the relative order of acquisition of distinctive features

and their resistance to assimilation. In effect, the first two features acquired by the child, consonantality and nasality, are the most resistant to assimilation. For the other features, however, no correlation is found.

The languages spoken by the subject are English and Spanish.

Microfilm \$2 95; Xerox \$10 35. 226 pages.

A DESCRIPTION OF LEXICAL AND GRAMMATICAL INTERFERENCE IN THE SPEECH OF A BILINGUAL CHILD

(Order No. 65-5435)

Paul Fred Kinzel, Ph.D.
University of Washington, 1964

Chairman: Professor Sol Saporta

The present study is a description of the interference in the speech of a six-year-old, English-French bilingual child who learned both languages in infancy. The child has spent her entire life in the states of California and Washington with the exception of three visits to France, a total of nine months, during which time she heard no English. Her mother was born in Paris and came to the United States in 1955. Her father, the author of this study, is American. French is spoken in the home by the parents unless monolingual speakers of English are present. No attempt has ever been made to force the child to speak only French.

The data for the study were collected mainly in conversations in the home. The child was never aware that her speech was being studied. Since she does not hear mixed speech, there is a high probability that the data represent original interference in language contact and not reproductions of previous usage.

The analysis of the data has led to a binary scheme of classification and presentation of interference phenomena which, in this study, are those departures from the norms of monolingual speech that are attributable to the child's bilingualism. As the child's English and French phonemic systems were separate by the time daily observation of her speech was begun, the interference she experiences is either of a lexical or grammatical nature.

Lexical interference is evident in the transfer, without phonemic alteration, of designative morphemes from one language to the other and in the extension of meaning of morphemes under the influence of specific morphemes in the other language.

Grammatical interference is seen as the product of the child's interlingual identification of grammatical relations and of the extension of the function of grammatical morphemes on the model of the influencing language.

Microfilm \$2.75; Xerography \$5.80. 119 pages.

THE RELATIONSHIP BETWEEN THE ENGLISH LANGUAGE ABILITIES AND HOME LANGUAGE EXPERIENCES OF FIRST-GRADE CHILDREN, FROM THREE ETHNIC GROUPS, OF VARYING SOCIOECONOMIC STATUS AND VARYING DEGREES OF BILINGUALISM

(Pages 153-156 "The Illinois Test of Psycholinguistic Abilities", not microfilmed at request of author. Available for consultation at the University of New Mexico Library)

Susan B. Gordon, Ph.D.
The University of New Mexico, 1969

PURPOSE

This investigation was initiated to analyze the relationship between English language ability and language-modeling by the mother, and the relationship between English language ability and total home language-modeling, with respect to Ethnicity; Socioeconomic Status (SES); and Language Model Type (language(s) spoken in the home).

The sample consisted of 50 Navajo Indian first-grade children from Sanders, Arizona, 55 Pueblo Indian first-grade children from five pueblos in the Bernalillo, New Mexico area; and 50 Rural Spanish-American first-grade children from Bernalillo, New Mexico. For hypotheses-testing purposes, the sample was regrouped according to SES and also Language Model Type.

PROCEDURES

The Language Model Matrix (LaMM) was designed to structure raw language-modeling data extracted from the Wolf Home Interview Questionnaire administered by the Southwestern Cooperative Educational Laboratory, Albuquerque, New Mexico. The LaMM was comprised of language-modeling sources (mother; father; older siblings; other adults; television; and reading to the child) and language-modeling contexts (recreation; eating dinner; interrogation about

school progress; assistance in schoolwork; speech correction; and praise). The output of the LaMM was an identification of Language Model Type; a score for each language-modeling source and each language-modeling context; and a score for the total interaction in the home.

RESULTS

The Main Hypothesis, which was supported at the .01 level of confidence, stated that a significant relationship exists between English language ability (as measured by the Illinois Test of Psycholinguistic Abilities (ITPA) Full-Scale score) and language-modeling by the mother (as measured by the Mother-Child Interaction score) and between English language ability and total home language-modeling (as measured by the Total Interaction score). It was tested by Product Moment Correlation. Within the total sample, English language ability and the two language-modeling dimensions significantly correlated. These relationships were maintained throughout all Ethnic; SES; and Language Model Type groups. Multiple Linear Regression Analysis attributed predictive abilities, regarding ITPA performance, to the dimensions of Mother-Child Interaction and Total Interaction.

The Sub-Hypotheses were supported at the .01 level of confidence. Sub-Hypothesis 1 stated that English language ability; language-modeling by the mother; and total home language-modeling significantly differ according to Ethnicity. It was tested by Single-Classification Analysis of Variance and the C Statistic. For all Ethnic groups, significant differences existed on the three dimensions. The Navajo Indian group scored the lowest, followed by the Pueblo Indian group, and then the Rural Spanish-American group. Sub-Hypothesis 2 stated differences according to SES. For all SES groups, significant differences existed on the three dimensions. The Lower-Lower SES group scored the lowest, followed by the Upper-Lower SES group, and then the Lower-Middle SES group. Sub-Hypothesis 3 stated differences according to Language Model Type. For all Language Model Type groups, significant differences existed on the three dimensions. The Native Only group scored the lowest, followed by the Native/English group, then the English/Native group, and finally the English Only group.

CONCLUSIONS AND RECOMMENDATIONS

Language-modeling, which varied with Ethnicity; SES; and Language Model Type, was related to and predictive of English language ability. It was found that the quantity of verbal interaction in the home increased with acculturation and particularly with SES. Thus, the more closely intra-familial relations approximate middle-majority norms, the more closely children subjected to such

interrelations can approximate the norms of the educational system. Since mother-child interaction is a middle-majority phenomenon, it was recommended that the quantity and quality of verbal interaction be increased in non-middle-majority homes. A concomitant outcome, then, would be widespread acculturation and elevation of SES. An immediate plan would be to design adult education programs which focus on instructing mothers in the methods of engaging and sustaining their children in learning-inducing dialogues.

Order No. 70-16,385 M \$4.00; X \$8.40. 182 pages.

THE EFFECTS OF BILINGUALISM ON THE RECALL OF WORDS PRESENTED AURALLY

Karl-Heinz Willi Evers, Ph.D.
University of Minnesota, 1970

Adviser: Dr. Emma M. Birkmaier

OBJECTIVES OF THE INQUIRY

A person who can speak two languages is skilled in manipulating two different sets of symbols. Experiments that cause the two sets to interact may provide important clues to how cognitive processes function.

The purpose of the investigation was to determine whether words repeated aurally in English and German are as well retained as words repeated in a single language. The study explored the way in which translation is involved in cognitive processes of bilingual subjects. It intended to answer the questions:

1. Are words repeated aurally in two languages as well retained as words repeated in a single language?
2. How is translation involved in cognitive processes of bilingual subjects?

METHOD AND TECHNIQUES

The testing instrument consisted of three different series constructed from 240 English and 240 German nouns found among the top 2000 words in both languages. These nouns were approximately equally divided between monosyllables and disyllables, and concrete and abstract nouns.

A rather complex type of instrument was used to arrive at indices of word association across languages.

A five-factor analysis of variance designed to account for repeated measures across both methods of presentation and ethnic groups was utilized. The level of significance was set at the five percent level. A total of twenty-four measurements of variables was analyzed for interlingual effects.

DATA SOURCES

The research population consisted of forty bilingual college students enrolled at the University of Minnesota, Minneapolis. Half were native speakers of English, the rest were native speakers of German. Two treatment groups exposed to separate and mixed presentation, were equated for age, sex, and functional bilingual experience.

The instrument was recorded on audio tape. Standardized directions were given on each series. Subjects were instructed to listen to a series with intent to recall. Verbal responses of each subject were recorded on tape, transcribed, and tallied. The data, coded by the investigator, was entered on data cards and processed by a computer.

RESULTS AND CONCLUSIONS

The findings were:

1. Results showed that interlingual facilitation of short-term memory in the audiolingual modality does take place. This supports findings obtained in an earlier investigation of interlingual facilitation in the visualgraphic modality channel.

Because of the complex interaction situation found (in the analysis of variance), it was concluded that no simple interpretations could be made of single main effects.

2. Findings with regard to translated and nontranslated series which confirm interlingual facilitation is evidence for the postulated equivalence of a word and its translation in a bilingual's short-term memory, and by implication, to the notion that auditorially perceived words are stored with respect to their semantic properties. The basis of this brain mechanism is no more clear for bilingual presentation than it is for the unilingual.

3. The Mixed Treatment Group made almost twice as many errors in recall as the Separate Treatment Group.

The following conclusions were drawn:

1. Results seem to indicate that in unconnected discourse, a bilingual person stores items in terms of their semantic, not their morphemic or phonetic properties. The referential or semantic similarity of items in two languages seems to be the basis of encoding.

2. It appears that if the same concept is presented to the bilingual in each of his two languages, the two presentations summate in their effects.

3. The large number of errors in recall is evidence that subjects were not very precise about linguistic membership and semantic content of words they recalled.

Order No. 71-8241, 167 pages.

CODE AND MESSAGE IN BILINGUAL ACHIEVEMENT MOTIVATION

Joav Findling, Ph.D.
Yeshiva University, 1970

Achievement motivation scores are obtainable from TAT stories in which the number of certain pre-identified content categories is said to be proportional to the strength of the motive. The central thesis behind this study is that motive states of the kind expressed in achievement motivation content categories may vary in a TAT-like story with message states descriptive of different situations as well as with codes to which these situations are culturally allocated. To test this thesis, a new instrument called Slot-Class Achievement Motivation Profile (SCAMP) has been developed. The SCAMP is a paper-and-pencil test in which message states varying along domain-associated topical and semantic lines and motive states varying from potentially low to potentially high achievement motivation are initially separate and it is the subject's task to combine them. The test consists of home descriptive and school descriptive incomplete stories in which each blank or empty slot corresponds to a pair of mutually substitutable entries of which one is always a high motive entry and the other is not. The subject's task involves a double operation: for each empty slot (there are ten blanks in each incomplete story) he must first find the corresponding pair (the ten pairs are presented at random) and then choose between the two mutually substitutable entries. Thus, each message state (incomplete story) on the SCAMP may be loaded with motive states (potential entries) ranging from minimal to maximal achievement motivation. However, the grammatical structure of each incomplete story is such that for each blank there is only one pair of entries that could properly fill it. Consequently, performance on the SCAMP is simultaneously indicative of the subject's degree of linguistic competence for the purpose of the task at hand (the proportion of slots correctly filled) and his degree of motive strength (the proportion of high motive entries chosen). The SCAMP consists of Spanish and English equivalent versions and of alternative

test forms in each language. In the preliminary study, 30 monolingual hospital nurses were tested on the English version of the SCAMP. It was found that in principle the SCAMP is as valid a test of achievement motivation as the TAT and by far more reliable. In the main experiment, 43 bilingual nurses of Puerto-Rican descent working in the same hospital were tested on the bilingual version of the SCAMP. With bilingual competence on the SCAMP matched up to a pre-established criterion, it was found that achievement motivation content categories varied as a separate function of code and message state. Significantly greater proportion of high motive entries was chosen to fill-in the empty slots in the school descriptive incomplete stories than in the home descriptive incomplete stories, indicating that motive states may vary with message states in which they are embedded. At the same time, significantly greater proportion of high motive entries was chosen in English than in Spanish, indicating that motive states may vary with codes in which messages are realized. The results are taken as supportive of the notion that to Spanish-English bilinguals of Puerto-Rican descent living in New York City, achievement motivation is domain mediated. The results are also discussed in terms of qualitative and quantitative systems of bilingual achievement motivation.

Order No. 71-14,294, 98 pages.

A CASE OF BILINGUALISM: AN INVESTIGATION IN THE AREA OF LEXICAL AND SYNTACTIC INTERFERENCE IN THE PERFORMANCE OF A BILINGUAL CHILD

Aleya Aly Rouchdy, Ph.D.

The University of Texas at Austin, 1970

Supervisor: John G. Bordie

This *study* consists of two parts: first, the writer, a bilingual herself, gives a definition of bilingualism and an examination of its linguistic aspect—interference. Second, the study examines interference in the speech of a twelve-year-old bilingual child, the writer's son, whose languages are Arabic and English. The subject spoke only Arabic on his arrival in the United States at the age of eight. The analysis of the child's speech demonstrates that interference occurs on the syntactic and lexical level of the child's native tongue.

The *purpose* of the analysis of the child's speech was to determine that performance, with its apparent interference, does not reflect the bilingual's

competence in Arabic. Performance is rarely a total manifestation of competence, and there are different kinds and amounts of interference in the performance, according to which the speaker can be classified as a native or non-native speaker of a language. These aspects and their quantity are examined in this study, and performance is used as data to be investigated in order to determine the subject's level of competence, in Arabic.

The *procedure*; data was recorded from the subject under study, over a period of six months. The material consists of systematized tests as well as spontaneous recorded speeches. Both measure the impact of one linguistic system on the other in the quality and quantity of the subject's knowledge of Arabic.

The *conclusion* of this study is that the passive knowledge of the bilingual child is greater than his active knowledge. This finding supports the following idea: bilingualism is more than a study of the speaker's performance. The examination of the speaker's performance, as well as his level of competence, would give a complete picture of the bilingual's knowledge of a language.

Order No. 71-11,603, 148 pages.

CATEGORIZATION, EFFICIENCY AND DOMINANCE IN BILINGUAL FREE RECALL

Starrette Lee Dalton, Ph.D.
The University of Texas at Austin, 1971

Supervisor: Frank Wicker

Three unresolved issues in the area of bilingual free recall were considered and experimentally tested. (1) A new application of factor analysis was explained and used to illustrate that bilinguals do not characteristically organize bilingual lists according to language markers although some individuals may use this strategy. (2) Results indicated that bilinguals recall bilingual lists as efficiently as they do unilingual ones. (3) No reversal of language dominance between unilingual and bilingual recall conditions was found. Instead there was an emergence of Spanish for nearly all Ss. These results, and the finding that spelling errors and difficulty of recall are positively related, were discussed in terms of accessibility.

Order No. 72-15,736, 81 pages.

THE ACQUISITION OF ITALIAN AND ENGLISH SYNTAX IN BILINGUAL CHILDREN

Carolyn Kessler, Ph.D.
Georgetown University, 1971

This study investigated the sequencing and rate of syntactic acquisitions for children bilingual in Italian and English. Focusing on late acquisitions in children age 6 to 8, the basic question asked if structures common to Italian and English develop in the same order and at the same rate in the bilingual child. The hypothesis was drawn that shared structures develop in a parallel manner since they find their source in a common underlying base structure and are realized by the same set of transformational rules.

The assumption is made that a child's competence differs qualitatively from that of the adult. Forming and testing a successive series of hypotheses about how the grammar of a language works, the child eventually constructs a grammar typical for the adult speaker. If the linguistic environment is multilingual, the child constructs rules governing whatever number of languages he is exposed to.

Twelve bilingual children in the Italo-American community of South Philadelphia, Pennsylvania, were selected for this study. Linguistic competence was examined through a battery of comprehension tests administered individually to each child. Tests included comprehension of inflectional categories, syntactic structures, and synonymous sentence pairs within Italian and English. The comprehension of synonymous sentences across the two languages was measured by a test using Italian and English interchangeably. Scores from a standardized test were used to assess cognitive development.

Testing included a wide range of surface structures representing similarities and differences between the two languages. The theory is maintained that similarities between languages are traceable to deep structure identities, differences to language-specific realization rules. For grammars of bilingual children, some rules are assumed to be common to the two languages; others, unique to each.

A statistical analysis of eleven variables — test scores and chronological age — was used to determine general patterns of acquisitions. The University of Miami computer program FACTOR calculated correlation coefficients, means and standard deviations, and carried out a principal component factor analysis.

Specific sequencing of structure acquisitions was interpreted in a case grammar model of transformational theory. In terms of deep structures, acquisitions that were investigated included case relations in simple sentences, embeddings, and noun phrase-feature specifications.

A high correlation coefficient for cumulative scores indicated close approximation to balanced bilingualism. Coefficients also suggested a positive link between levels of language acquisition and cognitive growth. In addition to cognitive development and chronological age, language attitudes and use related closely with the level of acquisition for the respective languages.

In regard to acquisition of specific structures, the following generalizations can be made:

- 1) structures common to two languages are acquired in approximately the same order and at the same rate by bilingual children
- 2) the sequencing of specific structures is dependent on the extent of linguistic complexity, describable in terms of case grammar relations
- 3) the most linguistically complex structures are those acquired last
- 4) the understanding of structural relatedness manifested in syntactic variants is underdeveloped for children age 6 to 8, but the development of this understanding follows approximately the same rate and order in the two languages.
- 5) in relating structures across languages, similar construction are more readily identified as synonymous than those involving a transformation
- 6) the most difficult structures to relate across languages are those in which one member of a pair involves a language-specific rule.

Implications for language contrast, contact, and change were examined as well as those for the application of child language acquisition to the theory of second-language teaching and learning.

Order No. 72-2287, 257 pages.

A DESCRIPTIVE ANALYSIS OF THE LANGUAGE OF A BILINGUAL CHILD

Edward John Mazeika, Ph.D.
The University of Rochester, 1971

The purpose of this study was to describe and compare the English-Spanish linguistic systems of a bilingual child with each other and with Ruth Weir's descriptive analysis of the English monologues of her monolingual son. It was felt that this comparison would reveal any negative and/or positive transfer (interference) within the individual; also, that an inter- and intra-linguistic comparison would reveal something about the developmental nature of child language.

The study grew out of the author's work in a project which has been studying the development of Mexican-American children under three years of age.

A search through the literature revealed no previous studies of the English-Spanish of bilingual children approximately two and one half years of age. The need for a study such as this was pointed out by Roman Jakobson (1962), Einan Haugen (1952), George Miller (1962), and A. Bruce Gaarder. Gaarder (1965) recommended using Ruth Weir's 1962 study *Language in the Crib* for a suitable methodology and much pertinent data.

Following up on this suggestion, tape recordings were made of the play-time monologues (this child did not engage in pre-sleep monologues as Anthony Weir did) of Carlito Pena between twenty-seven and thirty-one months of age. The recordings were made on a UHER 4000-L tape recorder, hidden in an attache case by the child's mother. The recordings were then transcribed phonetically, reviewed with the mother and form the corpus of approximately 2100 utterances.

In order to make the different structures of English and Spanish comparable, Roman Jakobson's concept (1941) of comparison by *sound classes* (or *categories*, e.g. bilabials, spirants) on the phonological level was expanded to include morphological and syntactic categories.

The author obtained results which show (1) that the late development of the slit fricatives /θ, ð, ɣ/ and the affricate /tʃ/ in Carlito's English may be a function of their absence in Mexican-Spanish phonology, (2) that there is slight evidence that being bilingual may be beneficial when one can select words that are easier to articulate from either language and insert these words in interchangeable slots in the sentences of either language, and (3) that, with few exceptions, the comparison of the three linguistic systems of two children reveals a parallel developmental sequence and this supports Jakobson's claim that the sequence in categories and relative chronology are the same for sound acquisition, (4) that similar findings in morphology and syntax, as well as phonology permit us to conclude that in a twenty-eight to thirty-one month old bilingual child 'language is a system' not only *between* the child and others, but also *within* the child, and (5) that these findings have important implications for testing and teaching purposes.

Order No. 71-22,307, 268 pages.

ENGLISH AS A THIRD LANGUAGE: ITS ACQUISITION BY A CHILD BILINGUAL IN FRENCH AND SPANISH

Anna Uhl Chamot, Ph.D.
The University of Texas at Austin, 1972

Supervisor: John G. Bordie

This study describes the acquisition of English over a ninth month period by a ten year old boy bilingual in French and Spanish. Samples of his oral language in an informal situation were taped at two week intervals, and the series of twenty two tapes was then analyzed grammatically and phonologically.

Items which deviated from the standard of English which he was learning at school in Austin, Texas, were classified according to type and an explanation advanced for their occurrence.

More than two thirds of grammatical errors, that is, those involving morphology, syntax and sentence formation, were felt to be due to interference from one or both of his other languages. Less than one third of grammatical errors were felt to be a developmental nature and therefore caused by non-mastery of the language. Phonological deviations, however, all seemed to be due to interference from French and/or Spanish.

The most persistent grammatical problems were: omission of constituents (particularly *it* and AUX *do*), use of present for other tenses, errors in subordination and embedding, preposition and article usage, interrogative and negative transformations, omission of *s* in third person singular, and use of singular for plural noun forms. Of these, only omission of constituents, present for other tenses, subordination and negative transformations showed substantial improvement.

The principal phonological problems were found in the use of: [o] for /ow/, [i] for /iy/, [ɪ] for /ɪ/, [d] for [ð], non-aspiration after initial /p/, /t/ and /k/, [s] for [z], [ai] for /ay/, [u] for /uw/, [a] for /ə/, un-English stress patterns, [ei] for /ey/, [e] for [ɛ], and un-English pitch patterns. Phonological items which improved most were the glides /iy/, /ey/, /ay/ and /uw/, and use of aspiration where required.

The implications for teaching were felt to be principally in the identification of difficulties which might be encountered in English by the student with a French and Spanish background.

Order No. 73-415, 248 pages.

THE EFFECT OF BILINGUALISM ON SELECTED VERBAL LEARNING TASKS

Barbara Jackson Junge, Ph.D.
University of Colorado, 1972

Supervisor: Associate Professor Stanley Ratliff

The purpose of the experimental investigation was to determine whether nine to twelve year old Spanish-speaking bilinguals performed better in Spanish or English on free recall and serial recall learning tasks. The subjects were English dominant on a measure of vocabulary in two languages and used non-standard Spanish. The materials in the vocabulary measure and the recall tasks were pictures, and all responses were oral.

In terms of errors and speed, subjects' performances were significantly superior in English, as determined by an analysis of variance of the repeated measures design with subjects a random factor and order, age, sex, language, and trial fixed factors. There were no significant differences associated with sex or age, but order had a significant effect. Having the recall tasks first in Spanish generally favored English performance. It was concluded that bilinguals do better in their dominant language to the extent that a learning task is language dependent.

Order No. 72-25,181, 128 pages.

EFFECTIVENESS OF SPEECH AND LANGUAGE THERAPY AS AN INTEGRAL PART OF THE EDUCATIONAL PROGRAM FOR BILINGUAL CHILDREN

Lois B. Nagy, Ph.D.
United States International University, 1972

Chairman: Warren Baller

THE PROBLEM

The purpose of this study was to investigate the effectiveness of speech and language therapy for Mexican-American school children when it was offered in conjunction with a program of English as a Second Language. The importance of the study derives from the need to assess objectively the role of the speech and language therapist in the educational program of the bilingual child.

METHODOLOGY

Sixty Mexican-American school children were divided into experimental and control groups with thirty children in each group. Twenty children were on the Primary Grade Levels, twenty were on Intermediate Grade Levels, and twenty were on the Secondary Grade Levels. Pretests and Posttest, testing articulation, auditory discrimination and language, both Spanish and English, were administered to the sixty children. The thirty experimental samples received speech and language therapy daily as well as English as a Second Language, while the thirty control samples attended English as a Second Language classes only. The research hypothesis stated that there is no significant difference between the speech and language of the Mexican-american children who receive speech and language therapy in conjunction with English as a Second Language and those children who receive instruction only in English as a Second Language. The following question was also posed: At what grade level, if any, may the child be expected to respond most profitably to this dual approach?

The t-test was used to determine the significance of the difference between the means of pretest-posttest differential scores between the experimental and control subjects. The Table of Critical Values of *t* was that which is appropriate for the one-tailed test.

RESULTS

On the Primary Grade Levels significant differences between the scores of the experimental and control groups were found in auditory discrimination and in growth in the Spanish language. On the Intermediate Grade Levels significant differences were found in the scores between the experimental and control groups in all areas tested, with the exception of Spanish and English. On the Secondary Grade Levels significant differences were found between the scores of the experimental and control groups in all areas tested, with the exception of Spanish. On all grade levels, taken together, significant differences were found between the experimental and control groups in all areas tested.

The findings of the study indicate that speech and language therapy in conjunction with English as a Second Language classes is of significant value on all grade levels when taken as a whole. When the study is analyzed on grade levels, however, it would appear that the degree of value varies. The study may be interpreted to suggest that on the Primary Grade Level, the speech and language therapist may act as a consultant if the teacher of English as a Second Language placed concentrated emphasis on training in auditory discrimination. On the Intermediate Grade Level the services of the speech and language therapist are warranted, perhaps on a three times a week program. The necessity for daily speech and language therapy is most strongly indicated on the Secondary Grade

Level where the most highly significant differences between the differential pretest and posttests of the experimental and control groups occurred.

Order No. 72-23,501, 130 pages.

BILINGUALISM AS A FIRST LANGUAGE

Merrill Kathleen Swain, Ph.D.
University of California, Irvine, 1972

Chairman: Professor Douglas K. Chalmers

A theoretical perspective to the study of bilingualism was proposed which suggests that bilingualism is merely an instance of the general human capacity to learn linguistic codes and switch among them. It was within this general framework that the acquisition of interrogative structures by four children who heard English and French from birth was examined.

Over a period of six to eight months the children were each visited every second week by two adults. Each child was led to believe that one adult spoke and understood only French and that the other adult spoke and understood only English in order to induce the child not only to speak both French and English but to translate from one language to the other. All speech occurring during each visit was recorded and transcribed. The corpus considered for analysis consisted of the recorded questions asked by the children during month-long periods every second or fourth month.

At the time when the recording sessions began the ages of the children ranged from two years, ten months to four years. The children were from middle to upper-middle class homes and their fathers were university educated.

Transformational grammar was used as a descriptive tool. Doing so raised questions about the relationship between a linguistic description and psychological processes. These were considered in a separate chapter.

Predictions concerning the order in which yes/no and wh question structures would be learned were based on a combination of two factors: the derivational complexity of the question structure as given by an adult 'French-English' transformational grammar, and the findings from past language acquisition research. The actual order in which the question structures were learned was used as the empirical basis for the construction of a grammar considered to characterize more accurately the psychological complexity of the question structures. The findings are summarized below.

The first yes/no questions to appear in the data were ones signalled by only a rising intonation contour, or by a simple tag. Next learned were questions signalled by the question morphemes *ti* and *est-ce que*. Finally, questions in which the subject noun phrase follows the first verbal element occurred in the data.

The first *wh* questions to appear in the data which were considered to be adequately characterized by the same rules as characterized adult questions were ones in which the subject noun phrase precedes the verbal constituents. Next to appear were ones in which the *wh* question word occurs within the question. Following this, *wh* questions in which the subject noun phrase follows the first verbal constituent were learned. Finally, *wh* questions which included *est-ce que* as an element separate from the *wh* question word itself appeared in the data. The use of question structure with a particular *wh* question word was not immediately generalized to all *wh* question words.

The order in which the comprehension of *wh* question words developed was (1) where/où, what/que (2) who/qui (3) why/pourquoi (4) how/comment and (5) when/quand.

When compared with available data concerning the acquisition of English or of French as a first language, generally speaking, the same developmental sequence was apparent. However, some question structures appeared relatively late in the data of the children learning French and English simultaneously.

Order No. 72-21,382, 304 pages.

INTERDEPENDENT AND INDEPENDENT STATES OF THE BILINGUAL'S TWO LANGUAGES

(To obtain a microfilm copy please order directly from the
National Library of Canada at Ottawa)

Josiane Frieda-Aline Hamers, Ph.D.
McGill University (Canada), 1973

In order to investigate the interdependencies of a bilingual person's two languages, a series of experiments using various techniques that would elicit different degrees of cross-language interaction were conducted.

In Experiments 1 and 2 an auditory version of the bilingual form of the Stroop test was developed, tested and compared to the visual form. It was shown that the results obtained with the visual form can be generalized to other modalities, and that the semantic aspect of the stimulus material presented in either of the

bilingual's two languages affects his efficiency of responding even when he is attending to some other non-verbal feature of the stimulus. Experiments 3 and 4 showed that when attending to the language of the stimulus material, bilinguals also were affected by the semantic aspects of the stimulus array. Experiments 5 and 6 showed that the semantic features of the stimulus did not affect the choice of the response language. Experiments 7 through 11 showed that bilinguals are unable to attend selectively to one of their languages and block out the processing of the other when semantically ambiguous words are used in the stimulus array.

The overall results demonstrate that all presented verbal material is inevitably decoded by bilinguals, suggesting that there is no effective language-switch mechanism functioning at the input level. Bilinguals are, however, capable of deciding in which language they will encode a response and that this decision is independent of the decoding processes and of the semantic aspect of the to-be-encoded response.

TOWARDS BECOMING BILINGUAL—COGNITIVE AND SEMANTIC CONSIDERATIONS IN LANGUAGE ACQUISITION

Perinpanayagam, Gnaneswaran ThiruRaj, Ph.D.
The University of New Mexico, 1973

Language learning is both culture-bound and individual-skill-bound, structured on an innate, biological capacity to acquire language. While it is a remarkable phenomenon when it occurs in the acquisition of a first language, it is even more remarkable in the acquisition of a second language where the main objective concerning competence is to bring the two languages into equilibrium. This equilibrium does not result in a final co-ordinate bilingual, which is only an abstract ideal. It is, rather, the complex bilingualism — the only bilingualism it is possible to demonstrate — and the equilibrium is judged on the needs and purposes of the languages concerned and may not be at the same levels as each other. There is interference in learning a second language, but while contrasts may be useful for planning teaching strategies, the learning aspect has to be directed making full use of the first language which has already been learned, focussing heavily on similarities — considering the Universals of language and the increasing trend towards the universals of thought.

The experiment was conducted on a group of twenty nine-year-olds and

twenty ten-year-olds to discover the process of second language acquisition when the terminal product is a monolingual (?) in the second language, i.e., the student would pass through the phases of bilingualism when he was a complex bilingual with the first language dominant, an unidentifiable but certain phase when he was a co-ordinate bilingual and finally a complex bilingual with the second language dominant. Thus the student is still a complex bilingual but with the second language dominant since the program was aimed at the hypothetical second language monolingual. Consequently the program was structured in a manner suited to such a terminal product.

The four modes used for eliciting responses were as follows:

1. Navajo Input — Navajo Questions (NN)
2. Navajo Input — English Questions (NE)
3. English Input — Navajo Questions (EN)
4. English Input — English Questions (EE)

With the nine-year-olds the hypotheses were confirmed — that the order of accuracy in the responses would take the following sequence: NN — EE — NE — EN. Among the ten-year-olds the relative positions of NN—EE and the relative positions of EN—NE were confirmed, but the overall sequence of the responses in the four modes was not confirmed. The sequence was as follows: EN — NN — EE — NE.

The explanations and discussions were based on the "Language of Confidence" (Navajo) and the "Language of Survival" (English) with memory playing a decisive part.

Considering all the factors involved, the recommendation made is towards a greater emphasis on vocabulary rather than syntax — for this, in the opinion of the author, would be the most efficient and economic, if the terminal product is to be the second language dominant bilingual.

Order No. 74-20,343, 242 pages.

ACQUISITION AND FORGETTING IN BILINGUAL MEMORY

MacLeod, Colin Munro, Ph.D.
University of Washington, 1975

Chairperson: Professor Thomas O. Nelson

Two experiments were conducted to examine the representation of meaning and of input language in bilingual memory. The first experiment used a savings paradigm to investigate long-term retention of 20 number-noun paired associates, 10 in English and 10 in French. The 23 subjects learned the list to a criterion of errorless performance and then returned 5 weeks later for an unexpected retention test and a single relearning trial. Interest focused on those items that were not correct on the retention test — in subsequent relearning, the subject was presented with either (a) the original word, (b) its translation, (c) an unrelated word in the original language, or (d) an unrelated word in the other language. Performance on the relearning test was equivalent for both the original word and its translation; both of these resulted in significantly greater recall than did either of the unrelated words. This finding suggests that the residual information in memory for a nonrecalled word is language-free, and that a word and its translation are derived from the same underlying semantic concept (unlike synonyms, which do not completely overlap semantically and do not show savings).

The second experiment used an incidental learning situation from the levels-of-processing methodology to investigate the retention of both meaning and input language. The 32 subjects saw 20 words, 10 in French and 10 in English. A binary decision for half of the subjects was made on the basis of the language of the words (Language group). Decision latencies were collected during this task — time spent in making the decision and depth attained in processing were not systematically related. Following the decision task, the subject had an unannounced free-recall test; as predicted, the subjects in the Meaning group recalled more words than did the subjects in the Language group. However, contrary to prediction, input-language recognition actually was better in the Meaning group than in the Language group. These results support the conclusions that (1) deeper, more semantic, processing results in better retention than does shallower processing, and (2) access to the language and meaning levels of processing is not direct.

Order No. 76-17,549, 109 pages.

UNDERSTANDING BILINGUAL MESSAGES: THE CONCEPT OF THE LANGUAGE SWITCH

Pandi, George Rudolph, Ph.D.
University of California, San Francisco, 1975

Chairman: George C. Stone

This study focused on the speed of processing verbal information when the message is in two languages. It had been proposed that bilinguals possessed two language systems which were independent and selectively activated; the two-switch model described a mechanism by which production and comprehension in either language could be controlled independently. Following the principles of a single-channel central system, the two-switch model specified that in the comprehension of linguistically mixed input two language systems had to be activated in succession, and that the change-over process required a measurable amount of time.

The present hypothesis stated that not all linguistic functions in comprehension are language-specific: the vocabulary was held to be undifferentiated by language, while grammars were separate for each language. It was predicted that the comprehension of discrete words did not require switching but the comprehension of sentences did. Four experiments were performed: (1) two-word signals specified the location and color of response-keys to be pressed, (2) word-pairs in which a category name and a member name were given had to be judged same or different, (3) mixed sentences were presented for verification (true/false judgment), and (4) unilingual sentences in sequences, alternating between languages, had to be verified. It was found that (1) two-word bilingual word-pairs were categorized generally as fast as unilingual ones, (3) most mixed sentences took longer to be processed, and (4) sentences that followed sentences in a different language were processed as fast as those that were preceded by sentences in the same language.

The first conclusions were made in support of the modified switch model, i.e., that no switching occurred during the processing of stimuli that were not structured as sentences, but sentences were processed by different grammars and switching was necessary to achieve a meaning. However, the results of the experiment with alternated sentences suggested that the change of grammars need not take time. Reaction time increases, as found for mixed sentences, could be due not to switching but a disruption in processing, caused by violations of syntax where language changes occurred in midsentence. The final conclusion proposed an explanation on the basis of a divided-attention model: it is hypothesized that bilinguals are able to maintain activity in two sets of language-specific processes and do not require time to alternate between them.

Different subjects responded differently to true and false (or same and different) stimuli in terms of reaction time averages, and the same subject's performance often differed between truth-value conditions in different language conditions. The method of averaging over subjects and over stimulus conditions obscures information about the comprehension process and may produce misleading results. The differences observed between subjects and conditions may be due to a varied choice of cognitive strategies, and need to be analyzed on an individual basis.

Order No. 76-8244, 140 pages.

DIVERGENT THINKING AND BILINGUALISM

(To obtain a microfiche copy please order directly from the National Library of Canada at Ottawa)

Ycas, Martynas Albert, Ph.D.
McGill University (Canada), 1975

Ninety-nine monolingual and multilingual university students were administered two divergent tests, Uses of Objects and Figures, both scored for fluency and originality, and the Remote Associates Test and Advanced Progressive Matrices. Analyses of variance did not find significant linear or quadratic language effects on divergent scores, although there was a linear effect on R.A.T. scores.

No language effects on divergent scores were found when multilinguals with French and immigrant backgrounds and bilinguals and trilinguals were contrasted. A critical review of three theories which have been suggested as possible explanations of differences in bilingual divergent scores concludes that they imply no such effects and the results of studies which have reported that bilingual children obtain higher divergent scores may have reflected non-linguistic differences between groups. It is concluded that bilingualism is not associated with differences in divergent test performance.

AN EXPLORATION OF AFFECTIVE AND COGNITIVE COMPONENTS OF BILINGUALISM

Collado-Herrell, Leida Ileana, Ph.D.
University of Maryland, 1976

Supervisor: Agnes B. Hatfield

Bilingualism, with its inextricable ties to biculturalism, is a subject of social relevance in a pluralistic society. The preponderance of research on bilingualism has been on the relationship between bilingualism and other cognitive functioning. Most definitions and theories of bilingualism have also been oriented toward cognitive features of language.

However, language is more than just a cognitive process; words have affective meaning within languages, the affective component of words has largely been ignored by those studying bilingualism.

The affective component of language derives from a lifetime of experiences a speaker has with words. Since the amount or type of experiences a bilingual person has with the dominant language may differ from those with the second language, words in the two languages may share a common cognitive meaning yet have differing affective meaning.

It was hypothesized that lexical equivalents in two languages would have different affective meaning, that the affective intensity of words in the dominant language would be greater than for their equivalents in the second language, and that differences in affective meanings of words would be greatest for words with high affective meaning.

Puerto Rican college students, 30 males and 30 females, all bilingual in Spanish and English with Spanish the dominant language, were subjects. All completed a questionnaire to assess level of bilingualism. All were then asked to rate 20 words along 15 Semantic Differential scales. The 20 words were 10 pair of Spanish and English lexically equivalent terms. Ten pair were high emotional words. 10 were low in emotional content. The 15 Semantic Differential scales consisted of five scales each from the Evaluative, Activity, and Potency factors.

All hypotheses were supported. Subjects reliably rated Spanish words differently on the Semantic Differential scales than they rated the English equivalents, indicating that the affective meaning of Spanish and English words did, in fact, differ for these bilingual subjects. Further, ratings of Spanish words were significantly more intense, i.e., departed more from scale mid-points, than ratings of the English equivalents. Words in the dominant language had more intense affective meaning than synonyms in the second language. Finally, both differences were greater for words high in affective content (e.g., AMOR—LOVE) than for emotionally neutral words (e.g., SILLA—CHAIR).

It was concluded that affective meaning is an important aspect of bilingualism. Speakers may have a well-developed cognitive bilingualism, yet the affective meaning of words in the two languages may differ. Several implications are presented. Theories and definitions of bilingualism should contain provisions for affective meaning in order to be complete. Dangers of miscommunication exist between speakers when one (or both) uses a language other than her/his native tongue. Implications are especially important for education. The contention that bilingual children benefit most from education in their first language is supported, since words in the first language have more meaning than in the second, and meaning is an important factor in learning. Further, the context of education is more favorable if educators are aware of and make use of the fact that second-language communication is a less meaningful form of communication for a child, and that the second language words may have different meaning for the child than for the native speaker of that language.

Avenues for future research include use of measures of meaning other than

the Semantic Differential, and investigation of subject variables, such as bilingual fluency, age at which the second language was acquired, and extent of exposure to the culture in which the second language is spoken.

Order No. 76-27,391, 103 pages.

LANGUAGE ACQUISITION IN BILINGUAL CHILDREN: ASPECTS OF SYNTACTIC DEVELOPMENT IN ENGLISH AND SPANISH BY CHICANO CHILDREN IN GRADES K — 4

Merino, Barbara Jean, Ph.D.
Stanford University, 1976

The main purposes of this study were: (a) to describe significant developmental trends in the acquisition of specific structures of Spanish and English in bilingual Chicano children in kindergarten through fourth grade, (b) to compare the control of these structures across tasks (comprehension and production), and languages (Spanish and English), and (c) to outline the order of difficulty of the structures by task and language.

Subjects for this study included all the children at a Bay area school who were bilingual, that is, could speak and understand English and Spanish with equal or near-equal proficiency when they entered school at the age of 5 years. There were nine children in kindergarten, four in the first grade, nine in the second grade, ten in the third grade, and nine in the fourth grade.

An instrument, the Bilingual Language Acquisition Scale (BLAS) was developed to measure competence in comprehension and production. The instrument included items for each of the following categories: Number, Gender, Past Tense, Word Order, Spanish Subjunctive/English Equivalents, Relatives, and Conditionals. In the *comprehension tasks* the subject selected (by pointing) one of two pictures which matched with the sentence that he heard. In the *production tasks* each child was shown two pictures involving some grammatical contrast, and heard a sentence describing each picture. As the experimenter pointed to one picture, the child was asked to produce the appropriate stimulus, which he had heard previously. As an independent check on the children's proficiency in English and Spanish, a fluency measure, *Word Listing by Domain* (Fishman, 1969) was administered to all the children in the sample. In addition, a subsample group of 20 children was shown the pictures used in the BLAS and asked to talk about each of the drawings before the test was administered to them. These

"free speech" data were used for a discussion of error analysis, as a basis of comparison. Errors that appeared in the BLAS were compared with those that appeared in the free speech protocols—for similarities and differences.

ANALYSIS OF THE DATA

Between subjects. The effects of two independent variables—grade and sex—on the performance in the comprehension and production subscales were measured through analysis of variance. Analysis of variance was also used to determine the effect of grade as a source of variance on performance in each of the seven categories. The interaction between grade and sex was measured through two-way analysis of variance.

Within subject. Within subject comparisons were made ($2 \times 2 \times 7$ factorial design) by task (comprehension, production), language (English, Spanish), and category. Two-way ANOVA for repeated measures was used to determine the effect of grade and language within each category.

Rank order. The rank order of all the types of items (Spearman's Correlation Coefficient) was correlated across tasks, grades and languages.

Control variables. To insure that differences among grades were not being influenced by accidents of the administration of the test (times tested, order of test), personal history (place of birth, order of language acquisition), or language-use patterns (retrospective as well as current), ANOVAs were conducted on these variables.

General effect of grade and sex. The interaction of grade and sex did not affect the performance to a significant degree, although the effect of grade alone was significant. Most development occurred between kindergarten and the upper grades in the English Comprehension and Production Subscales. In the production of Spanish, significant differences appeared between kindergarten and upper grades, to grade three. In the fourth grade, performance dropped sharply, with children performing almost at the kindergarten level. There were no significant differences by grade in Spanish comprehension.

Categories. Most significant differences among grades were produced in the more complex categories (conditionals, Spanish subjunctive/English equivalents, relatives) in the production subscales in English and Spanish, though some significant differences occurred in the comprehension subscales—relatives, in English; past tense, in Spanish. By fourth grade, in Spanish (and sometimes by third grade), children were performing with significantly lower accuracy than the younger children, particularly in the more complex structures (subjunctive and conditionals, for example). In the categories, as well as in the subscales as a whole, results suggest that the older children are undergoing language loss in Spanish.

A finding of major interest is the role that language complexity appears to play in language acquisition in bilinguals. In balanced bilinguals, some surface marker—probably those that are less frequent and not semantically consistent—slow the pace of acquisition of certain structures, such as the conditional.

Order No. 77-7132, 290 pages.

PRESCHOOL READING IN TWO LANGUAGES AS A FACTOR IN BILINGUALISM

Past, Alvin Wallace, Ph.D.

The University of Texas at Austin, 1976

Supervisor: Ana Chamot

The author's daughter was exposed to reading in English and Spanish for three years, beginning when she was two years old. The hypotheses were that (1) she would learn to read both languages in much the same way and at the same time she learned to speak them, and (2) that access to a source of native-quality, printed Spanish would contribute to her overall bilingual ability. Her mother and father were native speakers of English, having learned Spanish in college, and their abilities in Spanish were rated at 3+ and 2+, respectively, in Foreign Institute interviews.

The child's exposure to Spanish consisted of an hour to an hour and a half of daily oral interaction with her parents, children's bilingual television programs, biweekly play (on the average) with Spanish speaking children, and daily sessions with printed Spanish.

The reading sessions, from five to twenty minutes long, were conducted in one language at a time. In the beginning, the girl was shown words printed in four-inch letters, chosen for her interest in them. As she learned to recognize them, new words were introduced, the size of the letters was gradually reduced, and simple sentences and ultimately short books were presented. Words were read for the girl when necessary, but no attempt was made to help her discover sound-symbol relationships. She discovered these on her own through practice, accumulation of experience, and by the formation and testing of hypotheses about these relationships, in a manner similar to that of the oral language acquisition process.

After her fifth birthday, the girl's reading ability in both languages was assessed at home and in her kindergarten by means of informal reading inventories. These showed her reading ability in Spanish to be second grade, first semester,

and in English, second grade, second semester. Her oral bilingual ability was evaluated by the school, using the Oral Language Dominance Measure, which rated her a balanced bilingual. No confusion resulted from the reading itself nor from the use to two languages.

While other studies have demonstrated that young children can learn to speak two or more languages, and still others have described preschool children learning to read in one language, the present case is the first to document a child who learned to speak and read two languages at the same time. Hypothesis (1), above, was supported, but the contribution of Spanish reading ability to overall bilingualism (hypothesis 2) could not be reliably measured, and was only indirectly supported. Possibly, future studies with complete data on reading and speaking, instead of periodic sampling as in the present one, may be able to support or reject this hypothesis.

Order No. 77-11,568, 105 pages.

THE ACQUISITION OF ENGLISH SYNTAX BY SPANISH — ENGLISH BILINGUAL CHILDREN

Valadez-Love, Concepción Monreal, Ph.D.
Stanford University, 1976

The main purposes of this dissertation were (1) to identify developmental trends in the acquisition of specific syntactic rules in the spoken English of Spanish-speaking Chicano children who are in the process of becoming bilingual in a school setting, and (2) to assess the comparative development of the same syntactic constructions in the oral speech of monolingual English speakers.

The following three measures were used to elicit speech in this cross-sectional study: *The SCRDT Spanish/English Bilingual Balance Test*, *The Bilingual Syntax Measure* and the author's Experimental Measure for Negative and Interrogative Constructions. The Chicano subjects, totaling 63 children, were from Kindergarten to grade 6. The monolingual subjects were from grades 1, 3 and 5, with their total number being 26.

Item analyses performed on the three instruments indicated reliability levels Cronbach's Alpha from .816 to .911 for the bilingual students. For monolingual students reliability levels were as follows: Cronbach's, α .863 for *SCRDT Bilingual Balance Test*, α = .667 for *Question-Negation Test*, α = .181 for the *Bilingual Syntax Measure*. With the exception of the relation of the *Bilingual Syntax Measure* and the English portion of the *SCRDT Bilingual Balance Test*, correlations between all tests were significant ($p < .001$ for bilingual children, $p < .05$ for monolingual children).

The order of acquisition of the grammatical categories in the *Bilingual Balance Test* was established by observing the decrease in errors across the grades for the children in the two language groups. The acquisition of negative and interrogative constructions was observed by comparing the performance on 12 interrogative and 18 negative constructions by grade level and language group. The Duncan's New Multiple Range Test was applied to mean scores for a ranking of the constructions.

The developmental sequences were closely observed for two *Wh-* constructions and one *yes/no* construction as well as for three negative constructions, comparing the stages of development of the syntactic rules when learned as a second language with those in English as a first language.

The main findings of the study indicate that while there was improvement in second language performance as a function of time of exposure to English the increase was not uniform between each level, nor was there uniformity of improvement between each syntactic construction studies. The order in which the specific constructions were used correctly by the two language groups varied somewhat. The sequences by which second language learners approached total control of some syntactic rules resembled those followed by children learning English as a first language, but there was some evidence of the influence of Spanish rules, particularly at the morphological level. That the influence of the speech of the monolingual children on the learning of English by the Chicano children seemed to increase as the children became older, was shown by an increase of non-standard forms used by the bilingual children in the fifth and sixth grades. The constructions which were particularly problematic for each language group were not identified.

The findings of this study indicate that children learning a second language are acquiring the syntactic rules even as they are making "errors" in that language and that teachers can profit by knowing what the patterns of errors might be. Language arts teachers and materials developers should know that monolingual speakers of English and speakers of English as a second language may acquire grammatical patterns in different orders.

Order No. 77-7180, 208 pages.

BILINGUAL LANGUAGE DEVELOPMENT IN PRESCHOOL MEXICAN — AMERICAN CHILDREN

Redlinger, Wendy Eloise Anderson, Ph.D.
The University of Arizona, 1977

Director: Paul R. Turner

In the summer of 1973, 52 bilingual Mexican-American children residing in Tucson, Arizona, were tested between the ages of 16 and 24 months with Edward Mazeika's "Receptive Language Inventory for Monolingual Spanish or English) or Bilingual Children 12-36 Months of Age." The present study consisted of a follow-up investigation of 43 of the original children to determine language shift or maintenance patterns in relation to sociolinguistic parameters.

The subjects' respective language abilities at age four were measured by the Carrow Test for Auditory Comprehension of Language and the "Stewart Artola Picture Naming English/Spanish Dominance Test." An investigation into the home and preschool language background of each subject was conducted by administering an extensive questionnaire developed by the present author to the child's caretaker. The questionnaire explored such factors as the nature and quantity of sociolinguistic interaction involving the child as well as the child's exposure to books, mass media and the like.

A comparison was made of the child's receptive language dominance/balance condition at Time I as measured by the Mazeika Test and at Time II as measured by the Carrow Test to determine whether the child had maintained a given balance/dominance condition or had shifted to a different one. The children's maintenance/shift patterns from Time I to Time II and the children's Time II balance/dominance conditions were computer analyzed with respect to demographic and environmental variables as determined by the questionnaire. In addition, the subjects' Time II receptive language abilities in the two languages were compared with their respective Spanish/English vocabulary labeling skills as measured by the Stewart Test.

Several demographic and environmental variables were found to be associated with certain Time I to Time II maintenance/shift patterns as well as with Time II balance/dominance bilingual conditions. For example, preschool attendance was highly associated with the group of children shifting from a Spanish dominance at Time I to a balance bilingualism at Time II as well as with balanced bilingual children in general. One-way analyses of variance and multiple range tests revealed some significant differences between Time II test score means based on demographic and environmental variable categories. Of additional interest were those variables failing to show significant differences such as the child's television exposure, the presence of both parents in the home, the number of siblings, and the sex of the child.

The great majority of the subjects did not exhibit a double deficit in linguistic abilities. With regard to verbal labeling skill, less than 10 percent scored below the mean in both languages and in auditory comprehension, 20.9 percent scored below the mean in both languages. The comparison of Time II comprehension and vocabulary labeling skills indicated that most of the subjects understood

both languages well but that only a few were able to label common items in Spanish, a skill monopolized by the children clearly dominant in Spanish. Although the Spanish language was found to predominate in the home language background of most children, there was a high incidence of receptive bilingualism among the subjects of this study.

Order No. 77-15,337, 182 pages.

CONCEPT AND DEVELOPMENT

AN INVESTIGATION OF THE ESSENTIALITY OF IDIOMS AND FIGURES OF SPEECH IN THE EDUCATION OF BILINGUAL STUDENTS IN THE NINTH GRADE IN TEXAS AND NEW MEXICO

(Order No. 67-10,023)

Patricia Guynes Atkins, Ph.D.
University of Colorado, 1966

Supervisor: Professor Martin Cobin

This study attempted to determine the frequency of occurrence of idiomatic and figurative expressions in the reading materials encountered by Spanish-speaking bilingual students in ninth grade reading and social studies classes. It also investigated the comprehension by the students of idioms and figures of speech and the comprehension of the total context of the material. Finally, it attempted to determine the effects of an intensive approach to the teaching of idioms and figures of speech. The basic method was to answer three questions: (1) Do idioms and figures of speech actually constitute a meaningful part of the English with which bilingual students must cope? (2) Are bilingual students of English actually deficient in the knowledge of English idioms and figures of speech? (3) Can teaching methods be devised that will be effective in developing the competence of bilinguals in the use of idiomatic and figurative English?

Only if the answer to the first question was affirmative was the second to be investigated. If question two was answered affirmatively, question three was to be pursued. Results of tests were analyzed and the findings were highly significant. In the test for comprehension of total context in which idiomatic and

figurative expressions occurred, the sign test indicated significantly that bilingual students do not understand materials in which idiomatic and figurative elements appear.

Affirmative answers to each of the questions that motivated the study are: (1) English idioms and figures of speech, actually constitute a meaningful part of the English with which bilingual students must cope. (2) Many bilingual students of English are deficient in their knowledge of English idioms and figures of speech. (3) Teaching methods can be devised that will be effective in developing the competence of bilinguals in the use of idiomatic and figurative English.

Microfilm \$3.00; Xerography \$6.00. 123 pages

THE COMPARATIVE EFFICACIES OF SPANISH, ENGLISH AND BILINGUAL COGNITIVE VERBAL INSTRUCTION WITH MEXICAN — AMERICAN HEAD START CHILDREN

(Order No. 70-1496)

Lisa Frances Kurcz Barclay, Ph.D.
Stanford University, 1969

An experimental language and concept formation training program was tested with Mexican-American Head Start children in the New Haven Unified School District, Union City, California during the summer of 1967. Sixty-seven children were randomly assigned to six experimental treatment groups and two control groups taught by two special teachers. The children were tested both at the conclusion of the program and again in the Spring of 1968.

In view of the equivocal results of some other Head Start studies, this study was designed to incorporate the structured cognitive concept formation approach stressed by Ausubel with linguistic training methods for non-native English speakers to determine if such an approach might have more lasting results. In addition, the study attempted to determine whether the use of English, Spanish, or both as the language of instruction would result in the greatest language gain.

Ten linguistic and six conceptual objectives were developed, and a curriculum based upon these was written for the three different language modes. All children enrolled in the Head Start program were randomly assigned to eight groups and these to the eight treatment conditions (four treatments, including control, x two teachers). After dropouts and native English speakers were removed from the

study, 67 children remained. Each of the three experimental treatments, replicated by the two teachers, consisted of an intensive structured training program applied daily during a 35 minute period, and differing from each other only in the language of instruction used. The control treatment involved the use of music and art activities with the same teachers for an equivalent time period. Each group met 26 times. While not in the experimental classes, children spent their time in the regular Head Start program.

All children were pretested on the Peabody Picture Vocabulary Test. Post-testing during the last week of the program and followup testing during the following Spring was done on the Peabody, two subtests of the Illinois Test of Psycholinguistic Abilities, three subtests of the Vance Language Skills Test, the Templin-Darley Test of Articulation and three tests devised by the experimenter.

Test results were analyzed using correlation and one-way and two-way analyses of covariance.

1. The use of a structured language training program, based upon both psychological and linguistic foundations, for two short time periods daily during the seven-week Head Start program will result in greater language development as measured by appropriate tests than will the use of music and art activities for commensurate time periods with bilingual and Spanish-speaking Mexican-American Head Start children.

2. A bilingual presentation of the above language training program will result in greater language development in English than either a Spanish or English presentation alone.

Analysis of the data showed that Hypothesis 1 could not be sustained. On none of the posttest or followup test variables was there a significant F ratio favoring the treatment groups. Two results weakly supportive of Hypothesis 2 were found. On one posttest comparison the Bilingual group was significantly higher than the Spanish group; on another posttest comparison it was higher than the English group. However, in both instances there were teacher x treatment interaction effects which tended to weaken the main-effect. Hypothesis 2 therefore must be rejected for 18 out of 20 instances, and is only weakly supported in the other two instances.

This study thus showed that even in a structured language and cognitive training program during a summer Head Start experience, disadvantaged bilingual and Spanish-speaking children did not learn more, as measured on standardized tests, than did their peers exposed to a control treatment of music and art activities.

M \$4.75; X \$16.90. 372 pages.

BILINGUALISM: STUDY OF THE LEXICON OF THE FIVE — YEAR — OLD SPANISH — SPEAKING CHILDREN OF TEXAS

(Order No. 69-15-901)

Ricardo Jesús Cornejo, Ph.D.
The University of Texas at Austin, 1969

Supervisor: Professor Joseph Michel

The country is passing through a period of acute awareness of the bilingual. One of the problems faced by people studying bilingualism has been that of defining bilingualism and determining who is bilingual. In the specific case of the Spanish-speaking children of Texas, the situation is such that their language skills go from almost 100% Spanish to almost 100% English, with various degrees of compound, coordinate, and balanced bilinguality. This diversified speech pattern presents a serious challenge to the educators of these children.

The language research dealt with in this dissertation had as an aim to collect an initial corpus of recorded material representing the speech of the children, in order to gather information concerning the lexicon of these children before they enter first grade. The project was started in April, 1967; its purposes were: a) to collect a sample corpus of recorded speech, b) to develop techniques for eliciting speech, c) to develop pictorial and other types of materials for use in collecting speech, d) to evaluate different types of interview materials, e) to do lexical, phonological, and syntactical analysis of the findings, as well as a study of cultural patterns as shown in the language behavior of the children interviewed. The informants were selected according to criteria set up by a team of consultants and were chosen from four areas: 1) border-urban, 2) border-rural, 3) interior-urban, and 4) interior-rural. The interview materials were chosen from several sources, the basic one being the *Illinois Test of Psycholinguistic Ability*.

The preliminary analysis of the findings showed some linguistic patterns which were unexpected. One of them was the high frequency of "baby talk" in the speech of children who are about to enter school. The second important finding was that English is already the predominant language at that age. This was demonstrated in the high degree of lexical, phonological, and syntactic interference from English to Spanish, whereas interference from Spanish to English was highly significant at the phonological level but minor at the lexical and syntactic levels. This language situation should be studied in detail, especially because of its implications in the preparation of teaching materials for bilingual education programs. In order to improve the language skills of these children,

it is necessary to set up a language program which can provide for their needs in terms of their socioeconomic status, family background, environment, and intellectual development.

M \$3.00; X \$10.35. 228 pages.

BILINGUALISM AND COGNITIVE DEVELOPMENT

(Order No. 70-17,472)

Anita Denise Ianco Worrall, Ph.D.
Cornell University, 1970

Two factors associated with bilingualism were isolated: age and context of acquisition. Limiting itself to one definition of bilingualism, namely dual language acquisition, in a one-person, one-language home environment, a theoretical model was developed concerning the nature of the bilingual experience and ways it may influence the cognitive development of bilingual children. In the light of naturalistic observations reported by Leopold and Ronjat, and current knowledge on cognitive development, the notion was advanced that bilingualism is a source of enriched early experience. The general hypotheses were: a) a childhood bilingualism results in a faster rate of development in specific areas of cognitive functioning; b) childhood bilingualism has a permanent effect expected to equip bilinguals with certain reasoning techniques and greater flexibility. Only the first of these hypotheses was tested.

Subjects were 30 Afrikaans-English bilinguals, aged 4-6 and 7-9. Each bilingual was paired to two monolingual children, one Afrikaans speaking, the other English speaking, matched on intelligence, sex, age, school grade, and social class. The setting was Pretoria, South Africa. Bilingualism and monolingualism was ascertained through mother interviews, teachers' reports, and a test of bilingualism. Afrikaans testing was conducted by a native speaker of that language.

There were five experiments, in three separate sessions. Two of these aimed at testing Leopold's observations on the earlier separation of word-sound from word-meaning by bilingual children. Attention to meaning or to sound of words was tested with the semantic and phonetic preference test, a two-choice test in which similarity between words could be interpreted on the basis of shared meaning or shared acoustic properties. Bilinguals were tested with the two language versions of this test, equivalent, but independent, and administered several days apart. Exploratory studies had shown that on this test semantic preference increases with age.

The notion that bilingualism leads to the earlier realization of the arbitrary nature of name-object relationship was tested with the questioning technique described by Vygotsky. This called for explanation of names, whether names can be interchanged and, when names are being interchanged in play, whether the attributes of the objects change along with their names.

Three further experiments were optional shift, intended and actual classification, and the coding subtest A of the W.I.S.C.

On the semantic and phonetic preference test, the percentage of preschoolers found to interpret similarity between words in terms of the semantic dimension was: bilinguals .54, Afrikaans monolinguals zero, English monolinguals .08. The percentage of younger bilinguals classified in the semantic category of preference was similar to that of the older, 7-9, age group, although the difference between bilinguals and monolinguals disappeared at that level.

The application of the Vygotsky technique led to interesting results. It was found that the notion that names are arbitrarily assigned to objects develops later than the ability to separate the qualities of objects from their names. Bilinguals, of both age groups, excelled over monolinguals not where names are conceived to be aspects of things, but where the question of whether names can be interchanged required the formulated concept that names are arbitrarily assigned to things.

There was no difference between bilinguals and monolinguals on the optional shift, classification, and coding tests.

It was concluded that the study brought experimental support for Leopold's observation on the earlier separation of sound and meaning by bilingual children. It was also suggested that research into the nature of the translation process and the skills developed in that process, as well as into the process of keeping two languages distinct, should precede prediction as to the particular aspects of cognitive functioning influenced by bilingualism.

M \$4.00; X \$12.85. 282 pages.

CONCEPT LEARNING AMONG ANGLO, BLACK, AND MEXICAN-AMERICAN CHILDREN USING FACILITATION STRATEGIES AND BILINGUAL TECHNIQUES

Ernest M. Bernal, Jr., Ph.D.
The University of Texas at Austin, 1971

Supervisor: S. Thomas Friedman

Concept learning among Blacks, Anglos, English monolingual Mexican-Americans, and Spanish-English bilingual Mexican-Americans was studied under two different conditions: the administration of two specially adapted concept learning tasks (1) according to standard, printed directions, and (2) under facilitation, which included practice on similar test items with feedback. Variables controlled in this research included experimenter variables and the age, sex, educational level, and clinical normalcy of Ss. Certain analyses also controlled for SES.

Results indicate that (1) Anglos do significantly better than ethnic minorities under standard administration of concept learning tasks; (2) minority groups all score significantly higher under the facilitation strategy used, whereas Anglo groups do not; and (3) all groups score equally under facilitation.

These findings were taken to mean that (1) concept learning tasks normally favor Anglo student groups because of a differential experience readiness among ethnic groups to take these tests; (2) environmental influences can serve to equate groups; and (3) the heredity vs. environment explanations of ethnic differences in concept learning under standard conditions are in one sense irrelevant, for the problem may be said to pivot on the familiarity-unfamiliarity of test content for diverse groups and on pretesting preparations or directions given to students: different pretest experiences provide different effects on performance such that under facilitation conditions Anglos = Blacks = Mexican-American monolinguals = Mexican-American bilinguals.

Order No. 72-15,707, 112 pages.

THE RELATIONSHIP OF BILINGUALISM TO THE CREATIVE THINKING ABILITIES OF MEXICAN YOUTH

Dennis Clyde Carringer, Ph.D.
University of Georgia, 1972

Supervisor: E. Paul Torrance

The creative thinking abilities of children during the years of their development may be enhanced or debilitated by many factors. Young people who are bilingual may respond differently to stimuli designed to measure creative thinking abilities than those who are monolingual. The purpose of this study was to compare the creative thinking abilities of bilingual youths and monolingual youths.

The hypothesis of this study was that Spanish-English coordinate bilinguals would score significantly higher ($p < .05$) on the dependent measures of figural fluency, figural flexibility, figural originality, verbal fluency, verbal flexibility, and verbal originality than do Spanish monolinguals. The instrument chosen to measure the dependent variables was the *Torrance Tests of Creative Thinking*. A word association test was employed to identify twenty-four Spanish-English coordinate bilinguals and twenty-four Spanish monolingual subjects. All subjects were between fourteen and sixteen years old with equal numbers of boys and girls in the two groups. The Spanish-English coordinate bilinguals began studying English in school between the ages of five and ten, and the Spanish monolinguals began studying English after the age of twelve.

The results of multivariate analysis indicate that the main effect of language group was significant at the .05 level. Neither the main effect of sex nor the interaction effect was significant. The univariate analysis indicates that the dependent measures of verbal flexibility, verbal originality, and figural originality were significant at the .05 level in favor of the bilinguals and the dependent measure of figural fluency was significant at the .01 level in favor of bilinguals. There was no significant difference between the two groups on the dependent measures of verbal fluency and figural flexibility, although the bilinguals scored higher on both of these measures also.

Order No. 73-5664, 84 pages.

SYNTACTIC CHARACTERISTICS OF SELECTED BILINGUAL CHILDREN

Patricia Downer Van Metre, Ph.D.
The University of Arizona, 1972

Director: Roach Van Allen

This study is an analysis of selected syntactic structures of bilingual third-grade public school children who scored either high or low on a state mandated reading test administered in Arizona in 1972.

The study tested the applicability of an individual interview technique (developed by Carol Chomsky in 1969) to the investigation of language variability in selected groups of bilingual children. The questions asked were: Is there a difference between the designated groups of bilingual children in regard to the linguistic structures tested? If so, how can the differences be described?

A comparative study of monolingual children, matched with the bilingual population of the study, also was made.

The four syntactic constructions investigated were concerned with:

1. Interpretation of the words "ask" and "tell," and interpretation of "ask-question" sentences which violate the general principle of minimal distance for determination of the implicit subject of a complement verb.

2. Interpretation of "promise" sentences which violate the general principle of minimal distance for determination of the implicit subject of a complement verb.

3. Interpretation of syntactically complex sentences in which the underlying relationships are not expressed in the surface structure.

4. Interpretation of restricted pronominal reference to nonidentity.

The research hypothesis tested for each syntactic structure investigated was that there was a difference between the bilingual children who scored high in measured reading achievement and the bilingual children who scored low in measured reading achievement in knowledge of the structure.

Study groups met selection criteria related to age, grade level, measured intelligence, socioeconomic level, language spoken in the home, years spent in the same school, general health, and absence of special education problems.

Thirty-two children were interviewed individually. Four interview sequences were administered during one interview session. The entire interviews were tape recorded for transcription and linguistic analysis at a later time.

From the research, the following conclusions could be drawn. First, Children who scored high in measured reading achievement knew the test constructions significantly better than the children who measured low in reading achievement. Second, there was almost no difference between the matched groups of monolingual and bilingual children in knowledge of the test structures. Third, children measuring low in reading achievement and failing the three syntactic structures which had been found in earlier studies to be related more closely to individual rate of development than to age, also generally failed the test of the one age-related structure. Fourth, an hypothesized order of development within structures was applied with success to the interview data. Fifth, an order of acquisition among three of the syntactic structures was substantiated only in the groups of children who scored high in reading achievement. Sixth, the designated interview techniques were effective in defining differences among the study groups. Seventh, a relationship between reading and oral language was supported by the data in the study: the child who had not yet learned the tested structures generally had not performed well on the standardized reading test.

This study substantiated earlier research findings of both the orderly sequence of acquisition of syntactic structures and the advent of acquisition of some structures based more on individual rate of linguistic development than on age.

Educational implications of the study's conclusions include (1) the need for

teacher education programs which incorporate language structure and language acquisition research findings in order to increase teachers' knowledge of children's linguistic development, linguistic differences in children, and the relationship between oral language development and reading achievement; and (2) the need for classroom teachers who can utilize means for working with groups of children who are maturing linguistically at various rates.

Order No. 73-7806, 177 pages.

PICTURES AND THEIR REDUCTION OF ABSTRACTIONAL DERIVATIONS FOR THE QUASI-BILINGUAL INDIAN

Raymond Elmo Birch, ED.D.
Arizona State University, 1973

Chairman: Dr. O'Beirne

PURPOSE OF THE STUDY

The main objective of the study is to determine if pictures clarify the English language sufficiently to be a source of learning for the bilingual Navajo student.

The null hypothesis stated that there is no significant difference in the achievement of knowledge between two groups of quasi-bilingual Indian students when one group is exposed to a specific dialogue and accompanying pictures, and the control group which exposed only to the same dialogue as the other group.

PROCEDURES

The experimental method was used with an experimental and a control group.

The population for the experiment consisted of two groups. The experimental group had a population of 33 students and the control group had a population of 32 students.

The experiment was conducted with boys and girls who were Sophomore students at Intermountain School, Brigham City, Utah. The students who participated in the project were quasi-bilingual Navajo students.

The experiment was conducted over a one day period of time.

Prior to each unit of instruction, pre-tests were administered. After each unit of instruction, post-tests were given. The mean gain (post-tests minus pre-tests) represented the immediate achievement of knowledge.

ANALYSIS OF THE DATA

For this study of the null hypothesis, a .05 level of confidence was used.

The Fisher's t-test indicated that there was not enough statistical evidence to reject the null hypothesis or accept it, for there was a small percentage of growth among the students in the experimental group.

The Pearson r product-moment correlation coefficient was used to determine if the teacher-made instrument was valid. A .05 level of confidence was used.

CONCLUSIONS

The problem of this study was to test one null hypothesis concerning the achievement of knowledge by quasi-bilingual Navajo students with the addition of film or pictures to the curriculum.

The findings are herewith delineated:

1. The retention of the null hypothesis was affirmed with a $t = .87$ value through statistical computations involving the control group and the experimental group.

2. The pictures utilized in the experimentation did not conclusively provide the essential details to attach a specific picture or image to abstract terms.

3. Without the clarification of abstract terms, the students did not substantially increase their achievement of knowledge about stepping switches.

RECOMMENDATIONS

The detection of a small degree of growth among the students which were exposed to the pictures is a refreshing achievement. A more sophisticated system is needed to insure that the potential of this project is fully assured prior to the dismissal of pictures as a factor for improving the curriculum for the quasi-bilingual Navajo student.

Studies are needed which will explore some of the following avenues:

1. Efforts must be made to increase the oral usage of the English language from 15-20 minutes a day to a minimum of three hours daily.

2. The usage of team teaching techniques so that a ratio of one to one is obtained as many times as is possible during the week.

3. Another tool that is available is the language laboratory which consists of several individual tape recorders. Each tape recorder is located in a small booth that the student occupies. The tape recorder with prerecorded words and ideas is an excellent way of repeating words and ideas so that they become indelibly impressed upon the minds of the bilingual learner. This would be consummated in conjunction with pictures and films relevant to the oral and aural aspects of a particular lesson.

4. To have an adequate preparation for careers, it is essential that some careers be found near the learner's home so that some primary experience is part of the adolescent's life. Since the reservation is extremely limited in this aspect, it is essential that school plants be designed and constructed so that career implementation is a fact through the practical exposure to vocational careers. Actual motors, television sets, and other technical vehicles or instruments must be placed in the hands of the bilingual learners.

5. The curriculum of the schools must be revised so that abstract terms are incorporated into the academic classes. Time and efforts must give priority to develop units which encourage the development of picture sequences which enhance abstract terms and ideas. At this point, the student must be required to explain the emerging idea so that its clarity is observed by the teacher and the student.

6. Once the student has chosen his vocation, then the academic disciplines must be tailored to this end. Social Studies, Mathematics, Science, and Language Arts would focus their ideas on the vocation which was chosen on the basis of aptitude, interest, and general knowledge.

Order No. 73-28,648, 88 pages.

TWO-STIMULUS TRANSPOSITION AS DEMONSTRATED BY SPANISH/ENGLISH SPEAKING CHILDREN FROM BILINGUAL (SPANISH/ENGLISH) AND MONOLINGUAL (ENGLISH) INSTRUCTION CLASSROOMS

Hocker, Phillip Norton, Ph.D.
New Mexico State University, 1973

Supervisor: Dr. Douglas G. Muller

There has been little research in the area of the cognitive development of children who are required to learn in a second language. The available research suggests that bilingual children may not learn in the same way or at the same rate as monolingual children (Anderson and Boyer, 1970). This study investigated the effects of the language used by bilingual children for verbalization during problem solving. The transposition task, composed of learning trials to criterion and transposition test trials, was selected as the learning task to be used in this study. It has been suggested by the literature that transposition ability when tested beyond a designated distance on the dimension of interest, reflects a

verbal control of the test behavior (Kuenne, 1946; Alberts and Ehrenfreund, 1951; Marsh and Sherman, 1966). The present study used the transposition task with verbalization elicitation procedures similar to those of Marsh and Sherman (1966) to attempt to determine if the time required to learn a task and the linguistic maturity of native Spanish speaking children of the Southwest change as a function of the language being used, the grade level of the child, and the type of instructional program to which the child has been exposed.

METHOD

Subjects were native Spanish speaking children who had a conversational knowledge of both Spanish and English. They represented grades K, 1, 2 and 3 from a bilingual education program and grades 1, 2 and 3 from a traditional (monolingual) program. Each subject was administered a two-stimulus, simultaneous size discrimination problem. Instructions were given and verbalizations were elicited in Spanish or English depending on the language assigned to that subject. Subjects were trained until five consecutive correct choices were made. They were then administered a ten trial test for far transposition.

RESULTS

It was found that learning task performance of native Spanish speaking children is affected by the language used for verbalization. Subjects who trained and verbalized in Spanish required fewer training trials than those who trained and verbalized in English. The transposition test results suggest an English mediation deficiency for young kindergarten subjects. That is, although verbalizations were made during training trials, the test behavior of the English mediating kindergarten subjects was apparently not under verbal control.

IMPLICATIONS

Results of the study suggest that as a native Spanish speaking child enters school, he will probably learn more easily if he is taught in his native language. This condition will probably persist through his first year at school. It was further inferred from the transposition test results that an English mediation deficiency may exist in kindergarten SES children. This deficiency would adversely affect the acquisition of concept knowledge for these children if they are instructed only in English and are required to verbalize concepts only in English.

Order No. 74-13,729, 79 pages.

THE CLASSIFICATION SKILLS OF FIVE, SIX, AND SEVEN YEAR OLD BILINGUAL, BILITERATE, AND MONOLINGUAL CHILDREN

Toini Antilla Walden, Ed.D.
University of Southern California, 1973

Chairman: Professor Smart

PURPOSE

The purpose of this study was to determine statistically if there were significant differences among the modes of thinking in classification of lower class children: (1) between children who were exposed to an intervention program in classification and those who were not, (2) among bilingual, biliterate, or monolingual children, and (3) among children who were five, six, or seven years old.

PROCEDURE

To fulfill the purpose of this study, the following activities were undertaken: (1) A review of the literature was conducted in the areas of (a) the theory of Piaget in cognitive development as it relates to classification; (b) the ways in which bilingual children differ from monolingual children in conceptual thinking; and (c) the significance of the transitional ages used in the study. (2) From a population of six classrooms in a K-6 elementary school located in a unified school district of a suburb of Los Angeles, California, a total sample of 90 subjects was drawn. Two groups of 45 children each were randomly assigned to an experimental and control group. (3) The experimental group was divided into nine groups of five children according to age and language. These children were subjected to an intervention program conducted for six weeks during a 20 minute daily period. (4) The Rubber People and Animal Test was the pre- and posttest criterion measure which yielded the individual scores to provide a basis for the statistical tests. The test was analyzed according to four modes: categorical-inferential, descriptive, relational, and thematic. (5) Using a 2 x 3 x 3 analysis of variance, a Tukey's HSD test was computed on those levels of the independent variable in which were found significant differences.

FINDINGS

The major findings of this experiment were: (1) There was a significant difference in classification: (a) between the experimental and control groups in the categorical-inferential and relational modes, (b) among the five, six, and seven year old children, and (c) in the summation of all the categories. (2) There was no significant difference among the bilingual, biliterate, and monolingual children.

CONCLUSIONS

The conclusions drawn from the findings were: (1) Children who participate in an intervention program use a greater number and variety of modes of groupings than children who do not have intervention. (2) The type of intervention used contributes to the development of multiple modes of thinking. (3) As children increase in age they accelerate in the number and types of categorizations used.

RECOMMENDATIONS

In view of the present findings the following recommendations are made: (1) The development of curriculum which includes activities similar to the intervention program of this study. (2) The use of manipulative materials consistent with the instructional strategies to develop classification skills. (3) A more refined instrument(s) for the measurement of classification. (4) Longitudinal research to determine if there are lasting effects from classification intervention programs.

Order No. 73-31,683, 154 pages.

BILINGUALISM AND THE DEVELOPMENT OF SOME LOGICAL STRUCTURES

Kishta, Mohammed A., Ph.D.
The University of Iowa, 1974

Supervisor: Associate Professor Darrell C. Phillips

The purpose of the study was to investigate the performance of students on selected Piaget-type tasks and their degree of bilingualism as measured by the

ITBS and the Oral German Test. The work of Piaget and his co-workers strongly suggests that language more often reflects than determines cognitive development, and the development in language does not carry along with it a corresponding cognitive development. Piaget states that although language is a necessary auxiliary to the fulfillment of thought, it is nonetheless activated by the cognitive structures. The acquisition of linguistic symbols and the meaningful use of these symbols are two different things.

Eighty-five students from the fourth (23), fifth (28), and sixth (34) grades in the Amana Public School System were used in this study. Students in the Amana Public School System study German as a foreign language beginning in the fourth grade. The bilingual environment of the students was very weak, as measured by the Hoffman Bilingual Schedule. The degree of bilingualism was determined by the performance on both the Oral German Test which was designed by the investigator and the Iowa Tests of Basic Skills, the language (L) subtest. The development of logical structures was evaluated by presenting each subject with five Piaget-type tasks: Task I, Conservation of Area; Task II, Conservation of Weight; Task III, Coordination of Perspectives; Task IV, Multiplicative Classification; and Task V, Multiple Seriation.

The subjects were interviewed individually and the scoring criteria were based on the subject's ability to give logical responses and explanations for each part of the task. The subjects were categorized according to their performance on each of the five selected tasks. Group 1 consisted of students who did not finish the task successfully and group 2 consisted of students who completed the task successfully. This categorization was done for each of the tasks. Comparison of the performance of these two groups in each of the subtests of the ITBS and the Oral German Test was statistically analyzed by the use of the Mann-Whitney U Test and point-biserial correlation.

The Mann-Whitney U Test showed no significant differences of the two groups in performance on the Oral German Test in each of the selected grade levels and on all of the Piaget-type tasks. However, there were significant differences found between some of the task scores and some of the ITBS subtest scores. This was more frequent in the fifth and sixth grade level than the fourth. Similar results were shown by the point-biserial correlation. Thus, one can conclude that the group which had a higher performance on some of the Piaget-type tasks had also a higher performance on some of the subtests of the ITBS. There was no case in which group 1 had a higher performance on any of the linguistic skills tests, which clearly supports Piaget's views that linguistic abilities are used according to the level of operative structures.

There was no significant difference in performance between males and females on each of the Piaget-type tasks. However, on the Oral German Test there was significant difference in grade 4 ($\alpha = .05$) and in grade 6 ($\alpha = .001$) in favor of the females in both cases.

Considering grade level performance on the Piaget-type tasks there was no significant difference on tasks I, II, and III. However, on task IV and V the significant differences occurred between grades 4 and 5 on task IV ($\chi^2 = 5.198$) and between grades 4 and 5 ($\chi^2 = 9.46$) and grades 5 and 6 ($\chi^2 = 3.84$) on task V, in favor of the fifth grade subjects in all cases.

Also, the researcher investigated the task performance of the high and low bilingual subjects in both grades 5 and 6. The results showed significant difference on tasks I and IV in grade 5 and on task I in grade 6.

Order No. 74-21,916, 172 pages.

THE EFFECTS OF BILINGUALISM ON CONCEPT FORMATION: A COMPARATIVE STUDY OF MONOLINGUAL AND BILINGUAL ELEMENTARY SCHOOL STUDENTS

Schutzengel, Tirzah Gertrud, Ed.D.
Clark University, 1974

Supervisor: David Zern

Bilinguals adept in two languages, identify images and concepts with two symbols at least, one from each of their two languages. Does it follow that bilinguals learn to think in abstract terms more easily than monolinguals? Does repeated switching from one language to another increase flexibility in problem solving?

The present study compared bilingual with monolingual students in two urban elementary schools. Specifically, the question was investigated whether these selected groups differed in their mental development.

It was anticipated that because a bilingual child is potentially exposed to more varied concepts as a consequence of dealing with two languages, and because, moreover, the bilingual child is experienced in transferring concepts back and forth across these languages, his concept formation will develop faster than that of a monolingual. Advancing levels of concept formation implies a progressive tendency away from egocentrism toward more abstract conceptualizing, i.e., recognizing less obvious underlying motivations. Thus it was hypothesized that in addition to accelerating and enhancing cognitive understanding of physical relationships, bilingualism will enhance greater understanding of concepts dealing with human experiences and specifically the bilingual child may better interpret the behavior of others.

This research, conducted in two urban elementary schools, tested two groups of students at two times, eleven months apart. In the first testing 108 students participated, 53 bilingual and 55 monolingual. Eleven months later a smaller sample of the original group consisted of 24 bilingual and 39 monolingual students.

The two participating schools differed in one aspect: one school had a bilingual program (ESL) the other school did not. All bilingual students came from the school with the bilingual program while the monolingual subjects came from both schools. The groups did not differ significantly in age, sex and environment. Tests of significant correlations showed significant differences between the groups on country of origin and grade on first and second testing. These differences were adjusted for by covariance.

The instruments used to test these hypotheses were two Piagetian-type tests, identical at a first and second testing. The first test termed Concept Formation (T) consisted of 4 subtests. The second test, termed Identification (S) consisted of 3 subtests.

Two major hypotheses H_1 and H_2 were investigated in the first testing. These postulated that the test performance of the bilinguals would be higher than that of the monolinguals on both T and S. In addition four supplementary hypotheses were investigated at the second testing eleven months later. It was postulated that if hypotheses H_1 and H_2 were supported on the first testing, then the bilinguals would also do better than the monolinguals eleven months later on the same tests. These became supplementary hypotheses H_3 and H_4 .

It was further hypothesized that the bilinguals would do better on T and on S than the monolinguals from the same school after eleven months of bilingual instruction, and that the monolinguals from this school would perform better on T and on S than the monolinguals from the school that had had no bilingual program. These were supplementary hypotheses H_5 and H_6 .

The $p < .05$ level of confidence was selected as the minimum requirement for all tests. All data were submitted to analysis of covariance against this level.

The results supported H_1 and H_2 . Of the four supplementary hypotheses H_3 and H_4 were supported, H_5 and H_6 were rejected. The support of H_3 and H_4 and the rejection of H_5 and H_6 indicated that on the retesting the hypothesized differences between the groups were significant only on test S and not on test T.

These results gave some additional confirmation to research that maintains that other variables being equal, bilinguals will perform better than monolinguals on certain cognitive tasks.

Order No. 74-25,994, 227 pages.

THE EFFECT OF BILINGUALISM ON THE DEVELOPMENT OF THE CONCEPT OF SPACE

Jacobson, Vivienne S., Ph.D.
Purdue University, 1976

Major Professor: Robert J. Currie

This study investigated the performance of bilingual, Spanish-American children of lower socio-economic class on several Piagetian tasks of spatial conception. The performance of this group was then compared to monolinguals, to determine the effect of the dual code on developing non-verbal concepts.

Sixty bilingual children, aged six to nine, and an equal number of monolinguals, all from an inner city environment, were given three tests of spatial concepts. Bilingualism was determined by use of a bilingual questionnaire, and by the criterion of daily use of Spanish in the home. Three tasks, based on Piagetian theory and developed by Monique Laurendeau and Adrien Pinard (1970) were used, and Raven's Progressive Matrices was administered to determine the relationship of the spatial tasks to non-verbal intelligence. Scoring of the spatial tasks was by criteria established by Laurendeau and Pinard of stages of development, in addition to actual point scores for correct responses.

Analysis of variance was used to compare the performance of the two groups. No significant differences were found, either in absolute scores or age at which the various stages were reached. Correlations between the test of non-verbal intelligence and the spatial tasks were significant, indicating a close relationship between the abilities tapped by the two types of problems.

It was postulated that the test for bilingualism used in the study was not a valid indicator of the inner language used by the child. Another suggestion was made, that problem solving which capitalizes on the dual code of two languages might not have been accurately measured by the spatial tasks utilized.

Order No. 77-1730, 94 pages.

LANGUAGE AND CULTURE

BILINGUAL BACKGROUND AND ITS RELATION TO CERTAIN ASPECTS OF CHARACTER AND PERSONALITY OF ELEMENTARY SCHOOL CHILDREN

(Publication No. 6322)

Herman C. Axelrod, Ph.D.
Yeshiva University, 1952

The aim of this investigation was to study by means of objective measures certain aspects of school conduct, adjustment and reputation among bilingual children with varying degrees of bilingual background.

More than 1200 children attending grades 6 and 7 in public school and representing three nationality groups — Italian, Jewish, and Polish — were selected for this study. All were born in the United States and live in predominantly bilingual neighborhoods in the metropolitan area of New York City.

The findings of this investigation may be summarized as follows:

Practically no correlation was found between bilingual background and chronological age, intelligence or the specific measures of school honesty involving deception and overstatement. The correlations between bilingual background and the measures of adjustment and reputation were generally low but mostly negative, indicating a slight tendency for children with a lower degree of bilingualism to feel better adjusted and to be rated higher by their teachers and classmates on character and personality traits. This tendency revealed itself to a more marked degree when comparisons were made between matched groups of the same nationality differing widely in bilingual background. The "low" bilinguals surpassed the "high" bilinguals on most of the adjustment measures.

The problem of bilingualism in the United States involves much more than the use of two languages. Bilingual background, viewed more broadly, implies a bicultural background which may produce social and emotional conflicts. It is not the inherent use of two languages by the native-born child of immigrant parents that leads to maladjustment. It is rather the child's awareness of being different and the child's divided loyalty to two competing cultures that lie at the root of the maladjustment. Where a conscious and intelligent effort is made by the parents and the school to harmonize and reconcile the divergent elements in both cultures, the conflict may be reduced or eliminated, and a major cause of maladjustment removed.

Microfilm copy of complete manuscript of 192 pages, \$2.40. Enlargement 6" x 8", 10¢ per page.
Library of Congress card number MicA53-2122.

JAMES SEWID: A SOCIAL, CULTURAL AND PSYCHOLOGICAL ANALYSIS OF A BICULTURAL INNOVATOR

(Order No. 67-14,221)

James Phillip Spradley, Ph.D.
University of Washington, 1967

Chairman: Professor Melville Jacobs

Many North American Indians are living in a situation of culture conflict and rapid culture change resulting from contact with Western society. A variety of responses by individuals have been observed. Some cling to the native culture, some become assimilated to Western culture, and many are suspended between the native and Western cultures and experience anxiety and stress in their failure to adapt to either one. A few have adapted successfully to culture conflict by participating in both cultures and creating new cultural patterns which tend to integrate the two ways of life. This study was designed to better understand such a response by focusing on a single individual. James Sewid was selected because he is a Kwakiutl Indian who has successfully adapted to culture conflict in this way.

The autobiography was gathered on tape and edited by the author. James Sewid begins by telling of a large potlatch given in his honor when he was ten months old. At this time, as well as in later potlatches, he received many names and positions which were of high rank in Kwakiutl society. Life in a large community house is described along with the myths and legends of his tribe and clan. As a child he attended an Indian day school for parts of three years. When he was thirteen, he was married to a girl of high rank who was chosen by his parents. Soon after his marriage, he returned to the small isolated village of his own clan and lived there for the next fifteen years. He participated in potlatches, was initiated into the Cannibal society, and also became a leader in many innovations for improving the life of his people. Since about 1945, he has lived in Alert Bay, British Columbia, which is a town made up of White people living next to the Nimpkish Indian reserve. Many experiences are told of his attempts to improve the living conditions and minority status of his people.

An analysis of James Sewid's personality and sociocultural environment follows his autobiography. This is based upon previous studies of the Kwakiutl, interviews, observations, personality tests, and the autobiography. This analysis begins with a model for understanding the mutual relationship between culture change and the individual. On the basis of this model, the two major aspects

of his life are singled out for analysis: his bicultural adaptation and his innovative activity. A number of his innovations are presented and examined to determine where he got his ideas and how he recombined elements from two cultures into new patterns. The dimensions of his personality which enabled him to be both bicultural and innovative are discussed. These include Order-Disorder, Freedom-Restraint, Active-Passive, and Social Identity dimensions. Studies of creative individuals in Western culture are used as a basis for comparison. Since his response to culture change has been rather atypical and his personality configuration is also atypical for most Kwakiutl, the formation of his personality is related to atypical socialization experiences. Seven features in his early socialization are examined and he is again compared to creative individuals in Western culture for each of these. This thesis shows the impact culture conflict had on James Sewid in his socialization experiences, the personality configuration which resulted from these experiences and provided him with the capacities for bicultural and innovative living, and finally the process of innovation which he was able to carry out leading to further culture change.

Microfilm \$6.75; Xerography \$23.85. 530 pages.

LANGUAGE LOYALTY IN AUSTIN, TEXAS: A STUDY OF A BILINGUAL NEIGHBORHOOD

Roger Mark Thompson, Ph.D.

The University of Texas at Austin, 1971

Supervisor: David DeCamp

The sizeable Spanish-speaking population of Austin, Texas, is largely the result of recent urbanization of Mexican-Americans rather than immigration from Mexico. The purpose of this study was to establish whether Spanish is being dropped in favor of English as the population adjusts to the influences of the city.

Two surveys were conducted in a neighborhood that contains over half of the city's Mexican-American population. About ten percent of the Mexican-American household were randomly selected for the first survey. One adult rated the frequency that Spanish was used in the home by himself and the other adults with various family members, friends, and neighbors. The data for the 136 male heads of households were analyzed against the variables of age, generation, place of birth, locality of childhood, education, and occupation.

Because location of childhood was found to be the only highly significant variable, a second survey was conducted with those heads of households who were raised in Austin in order to validate the information supplied by the first informant, and to control the location of childhood while examining the relation of the use of Spanish at work, occupational mobility, and the degree of Northern or Southern accent to the use of Spanish in the home and with friends. Based on the results of these two surveys the following conclusions were drawn:

1. Locality of childhood is the most significant variable. Generally, the effects of age, generation, occupation, and education are not significant when locality of childhood is controlled. Adults who were raised in Austin use half Spanish with fellow Mexican-Americans whereas those raised in rural areas use only Spanish.

2. Contrary to the claims of some previous investigators, English accent does not reflect the use of Spanish. Those who believe that occupational advancement depends on education and ability are adopting Northern speech patterns. Those who feel that their accent is important are adopting a Southern accent. This difference has no significant correlation with the use of Spanish with other Mexican-Americans.

3. Generally, the Austin second-generation family is not teaching Spanish to its children. Instead, the parents expect the children to learn Spanish from urban first-generation friends and associates.

4. Diglossia, which would prevent the loss of Spanish, has not been established. The use of Spanish depends not on social function but on the Spanish speaking ability of the person spoken to. Except for the constant influx of rural Mexican-Americans, the use of Spanish would cease within one more generation.

Order No. 72-15,845, 149 pages.

THE EFFECTS OF ETHNIC IDENTITY OF EXPERIMENTER, LANGUAGE OF EXPERIMENTAL TASK, AND BILINGUAL VS. NON-BILINGUAL SCHOOL ATTENDANCE ON THE VERBAL TASK PERFORMANCE OF BILINGUAL CHILDREN OF PUERTO RICAN BACKGROUND

Wendy G. Oxman, Ph.D.
Fordham University, 1972

Mentor: Paula Fuld

In this investigation of alienation among bilingual minority group children in fourth and fifth grade, the effects on a paired-associate learning task of the following factors were studied: (a) similarity of the ethnic identity of the experimenter to that of the child's own family, (b) similarity of the language of the experimental task to that used by the child's own family, and (c) bilingual-non-bilingual school attendance of the subjects. In bilingual schools, adult members of the children's ethnic group were present, and the language of the children's families was used as a vehicle of instruction, whereas in non-bilingual schools the reverse was true.

This study sought to determine whether bilingual minority group children showed evidence of alienation from school in a non-bilingual school environment, and whether attendance at a school with a bilingual program might have prevented or alleviated that alienation. The presence of alienation was to be inferred from inferior performance on the paired-associate learning task. It was hypothesized that, if the subjects were alienated from school in a non-bilingual school environment, their performance on the task would be inferior for experimenters who were not of the same ethnic identity as the families of the subjects and inferior in the language of the dominant culture. Moreover, it was expected that performance would be superior, overall, in bilingual schools with either full bilingual programs or limited bilingual programs to performance in non-bilingual schools, and superior in fully bilingual schools to performance in limited bilingual schools.

A total of 256 fourth and fifth grade bilingual pupils of Puerto Rican background, attending one of two New York City bilingual schools or one of two comparable non-bilingual schools in the same city served as subjects. The paired associate verbal learning task was administered individually to a randomly selected sample of 64 subjects, equally divided as to grade level and sex, in each school. The stimuli, presented for two trials, consisted of sixteen arbitrarily paired pictures of common objects. The data analyzed were the total number of correct anticipatory responses on both trials. Puerto Rican and non-Puerto Rican experimenters administered the task to an equal number of children, in English or in Spanish.

No significant differences were found among the mean scores of pupils tested under any of the experimental conditions in non-bilingual schools, nor was performance superior in bilingual schools to that in non-bilingual schools. It was therefore inferred that such pupils were not alienated. Pupils attending the bilingual school with a full bilingual program, however, scored significantly lower than did pupils attending the school with the limited bilingual program or the comparable non-bilingual school, indicating the possibility of increased, rather than reduced alienation in full bilingual schools. The scores of pupils tested by Puerto Rican experimenters in the limited bilingual school and the comparable non-bilingual school were significantly lower in Spanish vs. English,

and, in the limited bilingual school, scores were lower in Spanish for non-Puerto Rican vs. Puerto Rican experimenters.

It was concluded that (a) bilingual minority group children were not alienated from school in a regular, non-bilingual school environment, that (b) attendance at a fully bilingual school may be associated with an increase, rather than a decrease in alienation, and that (c) effects of race or ethnic identity of experimenter may reflect distraction from a verbal task rather than an attitudinal factor such as alienation.

Order No. 72-20,595, 98 pages.

SCHOOLING IN THE ACCULTURATION OF ELEMENTARY SCHOOL CHILDREN IN A BILINGUAL BICULTURAL LATIN AMERICAN SOCIETY

Joseph John Pizzillo, Jr., Ph.D.
The University of Wisconsin, 1973

Supervisor: Professor Max Goodson

The basic concern of the dissertation is to develop a theory of acculturation and apply it to the specific problem of second language training and its ramifications in a specific social setting — the Island of Puerto Rico. The thesis is a practice in theory building that includes the use of empirical data from survey analysis which explores the role of schooling in the acculturation processes of ninth grade Puerto Rican rural and urban school children.

STATEMENT OF THE PROBLEM

The problem of determining the extent to which the school is instrumental in effecting acculturation may be posed as a statement in the following way: Assuming schooling to be an influence in changing the patterns of belief and behavior of children in indigenous communities, one must assess the attitudinal conditions of rural and urban school children to determine the extent schooling influences.

PROCEDURE

This assessment is approached by the author in a combination case study and empirical data based study involving the urban and rural areas of Puerto Rico,

a country with Spanish and American cultures and with a Spanish-English speaking populace. A sample of 703 public school pupils was used and stratified by the rural and urban areas; also a sample of 196 students attending parochial schools was used bringing the combined student sample to 899. In addition, a total of 404 parents was used in the study.

RESULTS

The overall results of the study should shed light on a "national" or federal philosophy of education, by identifying educational objectives a national government has deemed important enough to export. The value of this derives from the fact that the American system of schooling is decentralized, and its objectives vary somewhat by states and localities. It is plausible that only those aims which are acceptable nationally would be used to guide schooling abroad, and from these we can infer the existence of uniquely American educational values and, again, those uniquely appropriate to other countries.

CONCLUSIONS

Generally speaking, this study could well contribute to the formulation of theory dealing with acculturation problems. Being speculative, new and different avenues of research could: 1. lead investigators to imply from attitudinal type surveys implications for acculturation theory, 2. indicate a further function of empirical research in the area of acculturation, such as the provisional consolidation of presently scattered fragments of theory on acculturation and the models they are derived from, to an ongoing development of acculturation theory. This can contribute to Robert Merton's "creative function" of empirical research in reaching unanticipated, anomalous and strategic findings that exert pressure for initiating and extending theory on acculturation, 3. help to elaborate on the processes by which people relate themselves to groups (rural to urban, other dominant to other subordinate groups) and refer their behavior to the values of these groups, 4. contribute to more of an understanding of four functions of empirical research which help to shape acculturation theory development — initiation, reformulation, categorization, and clarification, and 5. advance the need for a series of sociological indices to be incorporated into research on acculturation.

Order No. 73-32,138, 392 pages.

THE RELATIONSHIP OF BILINGUALISM TO SELECTED INDICATORS OF INDIAN CULTURAL IDENTITY AS A VARIABLE IN THE ADMINISTRATION OF INDIAN EDUCATION

Kenneth George Ross, Ph.D.
University of Minnesota, 1973

STATEMENT OF THE PROBLEM

This study addressed the problem of whether or not ability to speak the native language had a direct relationship to interest in native cultural traditions among American Plains Indians living on the Standing Rock Sioux Reservation. This problem was further defined by the following specific questions:

1. Are there significant differences between the ratings of importance assigned to indicators of Indian culture by bilingual and monolingual Indian People?
2. Are there significant differences between the ratings of importance assigned to indicators of Indian culture by selected age groups of respondents?
3. Are there significant differences between the ratings of importance assigned to indicators of Indian culture by male and female respondents?
4. Are there significant differences in the ratings of importance assigned to the indicators of Indian culture as a result of language, age, sex, or combinations of these variables?

Seven operational null hypotheses were tested in answering the four major questions cited above.

DESIGN OF THE STUDY

The research design for this project is described by the following sequential steps:

1. Selected literature and research on Plains Indian culture was reviewed to identify those indicators which are central and unique to the identification and characterization of their culture.
2. An adult interview schedule and elementary and secondary student questionnaires were developed with items which allow individual ratings of the relative importance of information about the selected indicators of Indian culture. The instruments were validated using a jury of seven Indian educators and a pilot administration of the instruments to a group of Indian adults on the Standing Rock Sioux Reservation under the auspices of the National Indian Education Association Library Study.

3. A random sample of adults were drawn on the Standing Rock Sioux Reservation in North and South Dakota, using the 1970 Housing Survey Reports for the seven residential districts of the reservation as a sampling frame.

4. A representative sample was drawn of upper elementary Indian pupils (grades 4-5-6) and a representative sample of secondary Indian students (grades 9-12) attending various schools serving the Standing Rock Sioux Reservation.

5. The collected data were processed utilizing the facilities of the University of Minnesota Counseling Bureau and Computer Center. Three-way analysis of variance procedures using the UMSTAT 570 program were employed to identify significant differences.

CONCLUSIONS OF THE STUDY

As a result of following the study procedure and analysis of data obtained in this study, the following conclusions were reached:

1. Respondent bilingualism, as defined and reported in this study, did not influence, at the .05 level of significance, the perception of respondents regarding their desire to know or have more information about selected indicators of Indian culture.

2. There is a relationship, at the .05 level of significance, between age of respondents as a group and their expressed need to have access to more information about indicators of Indian culture. The only inconsistency in this trend was exhibited by the secondary student sample. This finding may be attributable, in part, to a possible cultural identity crises as a result of adherence to a youth subculture.

3. Sex, when used as a determinant variable, did not produce differences in respondent desire to know or have more information about selected indicators of Indian culture at the .05 level of significance.

4. Age and language interaction exhibited no statistically significant relationship at the .05 level to the indicated perceptions of Indian cultural indicators.

5. Sex and language interaction exhibited no statistically significant relationship at the .05 level to the indicated perceptions of Indian cultural indicators.

6. Sex and age interaction exhibited no statistically significant relationship at the .05 level, to all identified cultural indicators of this study.

7. Language, age, and sex interaction exhibited no statistically significant relationship, at the .05 level to all identified cultural indicators of this study.

Order No. 73-25,685, 167 pages.

GROWING UP A FRANCO-AMERICAN: THE SOCIAL AND ACADEMIC EFFECTS OF BILINGUAL EDUCATION IN NORTHERN VERMONT

(To obtain a microfiche copy please order directly from the National Library of Canada at Ottawa)

Edwards, John Robert, Ph.D.
McGill University (Canada), 1974

A French-English bilingual education programme in Northern Vermont was studied to investigate its effects upon the French-speaking children. Data was presented showing the decline in French usage in the area, and the gradual assimilation of the French families into the American mainstream. Against this background, the programme was seen to have helped the French pupils in academic performance compared both with their English schoolmates and with pre-programme French children. It was also shown that the programme did not have much impact outside the schools upon language usage or maintenance nor, it was argued, would this have been a realistic aim. However, in the terms of the Act under which the programme operated, the programme was successful — a considerable achievement in view of the generally bleak record of intervention programmes. On the basis of the findings, suggestions were made which would hopefully prove useful to other programmes.

BILINGUAL EDUCATION: SOCIAL PSYCHOLOGICAL CONSEQUENCES

(To obtain a microfiche copy please order directly from the National Library of Canada at Ottawa)

Genesee, Fred Henry, Ph.D.
McGill University (Canada), 1974

The present research was designed to assess the effects of bilingual education on the social development of elementary school children. Three groups of children were tested — all were native speakers of English: one group attended English schools with English-speaking teachers (*Control*); one attended English schools with French-speaking teachers (*Immersion*); and the third group attended

-French schools with French-speaking teachers (*French*). The children's communication skills were evaluated in terms of sensitivity and effectiveness in two different situations. As well, the children were evaluated using two other tasks which manipulated perceptual and ethnolinguistic cues.

In the communication situation the French and Immersion groups were more differentially sensitive to their listeners than were the Control children; but they were neither more nor less effective as communicators than the monolingual children. In addition, the bilingual groups did not differ from the monolingual group in terms of role-taking — either in the perceptual task or in the social task. The bilingual children did, however, perceive themselves in a different way from the monolingual children. The results were discussed in terms of the impact of bilingual education on the children's social sensitivity to others.

PSYCHOLOGICAL ADJUSTMENT AS A FUNCTION OF BILINGUAL PROFICIENCY

Martinez, Benjamin Louis, Ph.D.
Stanford University, 1974

STATEMENT OF THE PROBLEM

Identity may be viewed as a complex developmental process based on the biological, psychological, and social foundations of personality. When blockage occurs at any stage of the developmental process, identity may be impaired or lost. Bicultural individuals may be particularly vulnerable to blockage or disturbance in the process of identity development; because of the complications involved in coherently organizing a personal identity system from two different cultural sources. Often one of these cultures is rejected in an attempt to build what seems to be a desirable identity in terms of various social or cultural pressures. When this occurs, the individual's identity structure is frequently weakened.

The present research attempts to examine the hypothesis that the strength and viability of the identity (analyzed in this study in terms of psychological adjustment) of a bicultural individual is related to his bilingual proficiency. Specifically, it is hypothesized that Mexican Americans who are involved in the dual aspects of the Mexican American culture in the United States will experience a set of psychological conditions which are related to the degree of their proficiency in Spanish and English.

METHOD

The present study involved forty Mexican American subjects whose ages ranged from sixteen to nineteen. All were students enrolled at West High School in Salt Lake City, Utah. The sex distribution of the subjects was 24 female and 16 male.

The experiment utilized the following tests:

A. Bell Adjustment Inventory: The Revised Student Form of this instrument provided measures of total adjustment, home adjustment, health adjustment, submissiveness, emotionality, hostility, and masculinity-femininity.

B. A combined and modified version of the American University Language Center and the American Language Institute (Georgetown University) oral-aural technique for rating Spanish proficiency.

C. A combined and modified version of the American University Language Center and the American Language Institute (Georgetown University) oral-aural technique for rating English proficiency.

D. A questionnaire designed to measure the early and present environmental (interpersonal) sources contributing to the subjects' Spanish and/or English proficiency.

A correlational analysis of the data from these tests was made relative to the subjects' total Bell Adjustment scale and subscale scores and their linguistic proficiency scores.

RESULTS

The data obtained supported the original hypothesis in that the subjects with high Spanish proficiency received significantly lower mean scores (lower scores indicate a higher degree of adjustment) in the total adjustment scale and in five out of six adjustment subscales. It was noted, however, that the subjects with medium Spanish proficiency did not receive significantly lower adjustment scores than those with low Spanish proficiency.

CONCLUSIONS

The analysis of the data indicates that bicultural individuals with high bilingual proficiency tend to have a more adequate adjustment profile than those whose bilingual proficiency falls within the medium or low range. The total adjustment picture is not positively affected by a partial or medium bilingual proficiency.

Order No. 75-6885, 113 pages.

THE ADOPTION OF AMERICAN BILINGUAL SCHOOLS IN COSTA RICA: A STUDY IN SOCIOCULTURAL CHANGE

Cadby, Paul Howard, Ed.D.
University of Montana, 1975

Director: Dr. Lyle L. Berg

The purpose of the study was to explore the adoption of American schools located in Costa Rica by affluent, urban host country nationals. From a review of the literature in anthropology and sociology related to cultural borrowing, diffusion of innovations, and planned change, a tentative research model was developed. This model was tested with data collected in Costa Rica using the field research methods of social anthropology and natural sociology.

Through an analysis of the shared values of the recipients and their perceptions of the attributes of alternative means of schooling, an understanding of the acceptance of bilingual American schools was gained. An analysis of the common features of the adoption of private schools, bilingual American schools, and two cases of resistance-rejection of educational innovations in Costa Rica resulted in a reformulated model of the adoption process in socio-cultural change. The hypotheses derived from the analysis of the data were summarized as follows:

Given adequate understanding on the part of the recipients, acceptance is dependent upon the degree of compatibility between the perceived attributes or characteristics of a cultural element and the ideal value system or criteria of the recipients. A need, and motivating dissonance, comes into existence when some of the perceived attributes are incompatible with the value system of the recipients due to a precipitant factor which may influence either the characteristics of the element or the value system of the recipients. Perceived utility or reward is the satisfying of a need and the reduction of dissonance through a return to, or a bringing about of, a greater degree of compatibility. Not given understanding, acceptance will tend to depend upon the degree of compatibility of perceived attributes marginal to those inherent in the element itself. Agents of control may influence compatibility by modifying the characteristics of the cultural element or by attempting to modify the recipients' value system through communication for greater understanding.

Suggestions for the use of the model and recommendations for further research were also given.

Order No. 75-26,196, 213 pages.

THE EFFECTS OF FAMILY CHARACTERISTICS, PARENTAL INFLUENCE, LANGUAGE SPOKEN, SCHOOL EXPERIENCE, AND SELF-MOTIVATION ON THE LEVEL OF EDUCATIONAL ATTAINMENT OF MEXICAN AMERICANS

Cantu', Ismael Sierra, Ph.D.
The University of Michigan, 1975

Chairman: Curtis Van Voorhees

The purpose of this study was to determine the effects of family characteristics, parental influence, language spoken, school experience, and self-motivation on the level of educational attainment of Mexican Americans.

To achieve the purpose of the study, Mexican Americans born between 1940 and 1952 who attended schools in Mercedes, Texas, were randomly selected as the study population.

The data for this study were gathered through the use of a self-administered questionnaire. The population sample consisted of seventy-three participants.

Chi Square and Analysis of Variance tests were used to determine the effects of each independent variable on the level of academic attainment of the population sample. The tests were used to determine whether or not there was a significant difference at the .05 or .01 level of confidence.

The findings can be summarized as follows:

1. Parent's place of birth and marital status did not significantly affect the level of educational attainment.
2. Religious denomination differences (Catholic and non-Catholic) were not significant. Significant differences were found in Churches sponsoring educational activities, and the respondent taking part in these.
3. Parent's educational attainment, income level, and home environment provided, were highly significant.
4. Parental influence was highly significant.
5. Ability to speak English on the first day of school seemed to have a significant affect. The level of education attained was not significantly affected by the speaking of Spanish or English, in, or outside, the classroom.
6. Involvement in extra-curricular activities, and grades received in secondary school, were highly significant. Teachers and counselors being helpful, and elementary grades received, were not significant.
7. Analysis of self-motivation variables and educational attainment were highly significant.

The findings of this research appear to warrant the following conclusions:

1. It would appear that the level of educational attainment of the Mexican American can be improved if the socio-economic conditions in the Southwest, especially South Texas, are improved. This will provide the home environment necessary for success in the educational system.
2. Through community educa-

tion, the Mexican American parent's level of education needs to be enhanced. 3. Mexican American parents must administer more direct influence, through planning for the child's education, motivating him, and getting involved in the existing educational system. 4. The Church should strive to offer, and get youths interested in, educational activities. 5. Schools must provide competent bilingual-bicultural teachers and revise their curriculum so that it is relevant to the Mexican American. 6. Parents, schools, and society, should strive to motivate the Mexican American child to succeed in the educational system.

Order No. 75-29,186, 134 pages.

STRUCTURAL DETERMINANTS OF BILINGUALISM

De Vries, John, Ph.D.

The University of Wisconsin-Madison, 1975

Supervisor: Karl E. Taeuber

The study involves an analysis of community characteristics which were postulated to have an effect on official bilingualism in three officially bilingual countries. The analysis uses census data for communes in Finland (1950), counties and census divisions in Canada (1951) and magisterial districts in South Africa (1951). Hypotheses, based upon the postulated relation between bilingualism and the need for interaction, stated that relations were expected to be found between bilingualism and population size, population density, linguistic heterogeneity, level of formal education, urbanization and labour force composition. The predominant mode of analysis for the study is multiple regression analysis. Regression models were developed in a forward, stepwise fashion; the addition of new variables was determined by a criterion related to the proportion of additional variance explained (It should be noted that traditional statistical significance tests could not be used, since the data constitute universes rather than random samples).

Findings indicate that, for all three societies being studied, the main explanatory variable is the linguistic heterogeneity of the community. Other variables which were found to have an effect upon bilingualism were the level of formal education, the proportion of the labour force employed in agriculture, and the proportion of the labour force employed in tertiary occupations. The variables related to population size, population density and urbanization were found to have only very weak effects or no effects at all.

The implications of these findings for social planning in bilingual multilingual societies are that the educational system is an important factor for the acquisition of a second language by persons in multilingual societies. Furthermore, policies supporting increased mobility across language borders and decreased linguistic segregation could be expected to promote retention of the second language.

Order No. 75-19,064, 229 pages.

A BICULTURAL APPROACH TO THE ISSUE OF ACHIEVEMENT MOTIVATION

Gray, Tracy Chrysis, Ph.D.
Stanford University, 1975

The achievement literature emphasizes that achievement depends on a generalized desire to achieve; it does not deal with the issue of whether or not a culture values the appropriate achievement behavior — this study does. Within the current framework for assessment of achievement motivation, children from different ethnic and cultural groups tend to be classified as low in need achievement.

With regard to Mexican Americans Ramirez and Castañeda have observed that socialization practices among Mexican American communities whose value orientations are based on traditional (rural, Mexican) values develop in the child a strong sense of loyalty to the family, community, and ethnic group.

This study (1) examined the incentives for achievement motivation of female and male Mexican American and Anglo American children and, (2) examined the relationship between language behavior, as a possible indicator of acculturation, and modes of achievement motivation.

A questionnaire-type scale was developed to provide a viable assessment measure that is relevant for bicultural children who must learn to deal with the two sociocultural worlds of home and school. The Bicultural Achievement Motivation Scale (BAMS) contains 52 items and provides a general assessment of the mode to achieve. Four scales permit the assessment of the preferred mode of achievement; i.e., Achievement for Self and Achievement for Others within two achievement settings, Academic (competitive) and Home (non-competitive). The scales permit assessment of the absolute as well as the relative strength of each motive and the identification of a bicultural child who exhibits a strong preference for both modes.

In order to assess intracultural variability among Mexican American children,

a Language Usage Index was developed and used as a possible indicator of degree of acculturation from traditional to highly acculturated. All of the tests were developed in both English and Spanish versions.

The subjects consisted of 480 fourth and sixth grade Mexican Americans (N=258) and Anglo American (N=222) students attending schools in three dispersed California districts. Two schools were selected from each of the three school districts.

A statistically significant interaction ($p < .01$) for ethnicity and sex across both home and school achievement settings was found. This interaction supports the hypothesis of an overall joint effect of sex and ethnic group membership on mode of achievement.

In the Academic setting Mexican Americans scored relatively higher in Achievement for Others than the Anglo Americans. Additionally, females from both ethnic groups scored higher in Achievement for Others than the males. One of the unpredicted findings of this study was the significant interaction between ethnicity and sex in Achievement for Self in the Academic setting. Unexpectedly, Anglo American females showed a relatively lower mean on Achievement for Self than Mexican American females in this setting.

In the Home setting a significant interaction for sex and ethnicity was found. A greater similarity was shown among Anglo and Mexican American females and Mexican American males in mode of achievement than in the Academic setting. Anglo males showed the highest mean score on Achievement for Self and the lowest mean score on Achievement for Others in the Home setting.

The results from the analysis of intracultural variability in mode of achievement are consistent with those of the entire sample: The mean score on the BAMS were more closely related to the sex of the Mexican American students than to degree of language dominance of the students; i.e., sex was the major predictor of achievement motivation. Order No. 75-25,536, 147 pages.

CULTURE IN FRENCH BILINGUAL CURRICULA: AN ANALYSIS OF SIX TITLE VII PROGRAM DESIGNS FROM NEW ENGLAND AND LOUISIANA

Herrmann, Marjorie Elmira, Ph.D.
The University of Texas at Austin, 1975

Supervisor: Laurel A. Briscoe

In order to determine how the concept of culture had been perceived and implemented by bilingual curriculum writers, this study analyzed from several standpoints the cultural content found in all of the bilingual curricula (K-3) which have been developed to date at French bilingual project sites in New England and Louisiana. The investigation was prompted by multiple concerns: the difficulty of identifying minority culture in assimilated areas, the inherent risks of inculcating stereotypic and parochial attitudes in children, and the need for a systematic and comprehensive approach to such material which could be supported by a valid theory of culture. Guiding questions of the study sought (1) to determine which characteristics of culture had been most frequently selected by French bilingual curriculum writers as being representative of the culture in their respective areas, (2) whether this content had been uniformly sequenced throughout the K-3 grade levels studied, and (3) how it had been distributed throughout the various disciplines.

The search for related literature revealed that although many support the merits of cultural reinforcement in bilingual instruction and favor a culture-based curriculum, the pragmatic aspects of implementation based upon a theoretical model of culture have not been investigated.

Analytical procedures for this study consisted of converting Edward T. Hall's Map of Culture (a system for categorizing cultural data) to curricular terms, placing each cultural item from the instructional guides in its appropriate position on the matrix, and tabulating and interpreting the data.

Whereas Hall's classification system provides 100 categories for describing a culture in its totality, the data of this study revealed that only 27 to 68 of these had been utilized in the French guides examined. Cultural characteristics most frequently selected by the writing teams included: creative arts, language, holidays and festivals, ecology, exploitation of natural resources, technology, ethnic history, means of subsistence, food, and the family. Several projects developed courses of French instruction in physical education, natural science, and music. Some efforts to develop folkloric material were noted. All projects developed French instructional aids, reading materials, and games appropriate for the cultural perspectives and linguistic capabilities of the students.

No single pattern of sequencing prevailed. One curriculum increased cultural content as it progressed through the grades; others decreased this content in varying degrees offering more in the first two grade levels than in subsequent grades. Subject areas that bore the heaviest cultural emphasis were social studies, creative arts, and language arts with all other disciplines well represented. A concerted effort appears to have been made to incorporate the child's language and culture into every area of instruction. Solutions to the problems of selection of relevant cultural material varied greatly and appeared to be directly influenced by the richness and vitality of local cultural traditions.

As this study indicates, there seems to be a tendency on the part of some of

the curriculum writers to portray the culture *idealistically* rather than *realistically* as important historical facts were occasionally omitted or left unexplained. A traditional approach to sex roles was apparent. Instruction about the family was offered in a culture-free context. For some programs folklore was an untapped source. While emphasized for all programs, language goals were in some cases partially or inconsistently expressed in the curricula. Some of the unique contributions made by the French bilingual curriculum writers to the general understanding of bilingual curriculum instruction were their treatment of cultural commonalities as well as differences (in the ecology and environment units), and the carefully-developed units in science and physical education especially geared for language development.

Implications were drawn from this study concerning: multicultural factors in the bilingual classroom, language as a purveyor of culture, diversification of cultural content based upon a theoretical model of culture, relation of cultural commonalities and differences to curriculum planning, and outcomes inherent in realistic and idealistic curricular philosophies.

Order No. 76-8042, 208 pages.

AN INVESTIGATION TO DETERMINE THE RELATIONSHIP BETWEEN SELECTED FAMILY VARIABLES AND THE GENERAL ABILITY OF YOUNG SPANISH SPEAKING CHILDREN IN BILINGUAL EDUCATION CLASSES (A DESCRIPTIVE STUDY)

Stone, Emilita R., Ph.D.
New York University, 1975

Chairman: Professor Santiago J. Luppoli

An increasing number of non-English speaking children have entered the public schools over the last decade. One educational focus has centered on constructive educational programs for these children; another, the importance of their home background on academic performance.

This study investigated the relationship between general ability and selected family variables related to the home educational environment of Spanish speaking children in kindergarten and first grade classes in a Bilingual Program in Brentwood, Long Island, New York.

The measure of general ability was the Inter-American Test of General Ability (IAT), administered in Spanish, to four kindergarten and two first grade bilingual classes with 36 of the population of 108 randomly selected for this study. It was established that there was no significant difference between the Brentwood mean total IAT score and that of a comparable sample in California; between the IAT mean scores for the Brentwood kindergarten and first grade classes and between the mean IAT total score in our population of 108 and in our sample of 36 students.

Seven aspects of the home educational environment were measured by W. E. Lambert's adaptation of the Home Educational Environment (HEE) Index: Father's and Mother's Education and Occupation; Emphasis on Education; Home Guidance and Educational Facilities; Quality of the Linguistic Environment and Enrichment of the Home Environment. An Informal Family Questionnaire Form (IFQ) was also administered to obtain additional information.

The bilingual interview teams administered a Spanish translation of the HEE and IFQ to the parents of the 36 students in the study. The HEE Index was independently rated by the researcher and a school psychologist with high inter-scorer reliability.

Thirty simple correlations were run between the HEE and IAT scores. A descriptive analysis related aspects of the HEE responses to the IAT scores and the IFQ responses to the IAT scores.

The highest correlation was at the .05 level of significance between total IAT and Parent's Occupation (.01 between verbal IAT and Parent's Occupation). The next highest correlations were between the IAT and Quality of the Linguistic Environment and Parent Education.

A descriptive analysis of specific items within certain variables on the HEE regarding children in our sample who scored high on the IAT suggested the following trends: their mothers work; their parents do not have unrealistic goals on their occupational future and preschool programs do not play a significant role.

A descriptive analysis of the IFQ suggested the following profile characteristics for children who scored high on the IAT: their parents resided in the country eight years or less, the number and order of siblings in the family and the presence or absence of stepparents were not significant, and the parents tended to be more aware of school procedures and regulations and to be more involved in the bilingual school placement.

Past studies, in some instances, may have overemphasized the influence of certain home educational variables on academic performance in a low socioeconomic group and underemphasized the importance of structured, dynamic bilingual programs in offsetting supposedly negative home environmental variables.

It is possible that individual students with their unique configuration of

personality traits may be able to perform well in bilingual programs regardless of environmental interferences.

It is important the the school be alert to determine ways in which they can reach families of low socio-economic levels and be aware of those home variables that may be relevant to school performance.

Finally, suggestions for further research are delineated.

Order No. 76-1759, 186 pages.

BILINGUAL PEER INTERACTION IN THE WASHINGTON INTERNATIONAL SCHOOL

(Anthropology Dissertation No. 31)

Stryker, Shirley Letts, Ph.D.

The Catholic University of America, 1975

The purpose of this research was to discover patterns in the uses of French and English in the verbal peer interactions of students at the Washington International School. The School was founded in 1966 in order to provide bilingual education for children in the international community of Washington as well as for local families. It offered a French-English and a Spanish-English stream.

The research was approached on three sociolinguistic levels. The macrosociolinguistic level was that of the School, its principles regarding language use, its academic structures, and its organization. The midsociolinguistic level was that of a second-to-third grade classroom, its linguistic expectations, its curricula, and its schedules. The microsociolinguistic level was that of dyadic peer interaction: for this level observations of the peer interactions of five students new to English were used. Sociolinguistic concepts were drawn primarily from the works of Dell Hymes, W. F. Mackey, and Joshua A. Fishman.

The primary method used to gather data was participant observation. The sociolinguistic data were recorded on a special instrument devised by the investigator: the Speech Act Data Chart (SADACH).

The research hypothesis was: In a bilingual school environment, a student will speak the language used by his role-reciprocal, depending upon the following conditions: 1) the linguistic expectations in the situation; 2) the dominant language of his peer group; and 3) his competence in the language.

The first condition was set by the School's expectations for complete two-way bilingualism: all of the students were educated together, regardless of their

national backgrounds, using two languages on alternate days. The second condition was found in the study of the classroom in which, although French was the language to be used exclusively on one day and English exclusively on the alternate day, English was the dominant language of the peer group and intruded on the French days in peer interactions. The third condition was examined by means of the study of the five students new to English in order to learn how they coped with the bilingual expectations and the peer uses of English when they were just beginning to learn English, and to observe how they progressed through time in the direction of conforming to the expectations.

The patterns of bilingual peer interaction that were found were: 1) regardless of the child's language background, once he knew both English and French, he spoke English everywhere except in his French classroom when required to do so by the teacher; 2) outside of the French classroom, French was used between peers only in dyads isolated from the group in which both speakers were from a French background and one was new to English; and 3) even in such French speaking dyads, after three or four months, the bilingual speaker began to use English in reply to the newcomer's French, thus helping him to move toward the first pattern. There was no language mixing, and language switching occurred only temporarily in relation to patterns two and three.

Order No. 76-4791, 215 pages.

EFFECT OF COORDINATE BILINGUALISM ON TAT RESPONSES

Fanibanda, Darius K., Ph.D.

California School of Professional Psychology, Fresno, 1976

Chairman: Joseph M. Sacks

Twenty-six Coordinate bilingual Asiatic Indians gave TAT stories on two different occasions for the same pictures in English at one session and in Hindi (or Gujarati) at the other. Predictions based on cultural differences were made regarding expected content differences in the two languages. Of eight predicted content differences, two were statistically significant. Blocking of anger against the elderly was more frequent in Hindi (or Gujarati) themes than in English. Revery was also significantly more common in Hindi (or Gujarati). In these respects, content shifted with language, for the same individual on two different occasions.

Order No. 76-19,649, 143 pages.

DESIGN AND IMPLEMENTATION OF AN ENGLISH AS A SECOND LANGUAGE PROGRAM IN A BILINGUAL COLLEGE

Velázquez, Clara Virgen, Ed.D.
University of Massachusetts, 1976

The main goal of the dissertation is to present the design and implementation of an English as a second language (ESL) program at the college level.

Chapter I presents the rationale for viewing the United States as a bilingual nation and also serves as a background for the entire dissertation. This chapter explores the apparent paradox that although legally the United States became a multilingual nation with the signing of the Treaty of Paris in 1898, it is only recently that efforts have been made to meet the need for bilingual education at a national level. The chapter also explores bilingualism in New York City and the educational problems which have resulted. These problems now encompass the college level as well as the elementary and high school levels because of an open admissions policy which guarantees each New York City high school graduate a place in one of the nineteen colleges of the City University of New York. The Open Admissions Policy has changed the character of the college population, creating a new population which lacks the necessary linguistic and academic skills needed to succeed in college life. Part of this college population are either foreign-born or American citizens born in Puerto Rico. ESL programs have been instituted to help this population, and the problems associated with these programs are explored. The dissertation presents a strategy that will endeavor to solve some of these problems.

Chapter I serves as a basis and rationale for the entire dissertation. It gives the sociological roots of the problem and presents an overview of the educational efforts attempted for their solution. It indicates why New York City needs an innovative method of teaching English to those Hispanic students who desire to pursue a college education but are unable to do so because of language deficits.

Chapter II presents a theoretical framework of current methodological trends as reflected in the ESL literature of today. The chapter also deals with the exposition of opposite methodological positions and the examination of studies dealing with the effectiveness of these trends. The purpose of this chapter is to give the dissertation its ideological substratum, and this information can be utilized by anyone attempting to devise a similar kind of curriculum.

Chapter III studies the objectives that the ESL program attempts to meet. These have been categorized as linguistic, sociological, and self-oriented. The sociological objectives are designed to enable the program to help the student

achieve a better understanding of American culture and to ameliorate the culture shock which the student experiences in his new social milieu. The self-oriented objectives are designed to enhance the student's self-identify and to make him aware of contributions Hispanic culture has made to American culture. The linguistic objectives are designed to allow the student to interact verbally with his new social environment and culture. All three objectives are meant to help the student assimilate the features of his new surroundings.

Chapter IV offers an ESL curriculum which will guide educators attempting to establish a program of this kind. It offers a specific model of a program similar to that in existence at Hostos Community College, a bilingual college of the City University of New York. Methods of instruction, specific graduated levels of language learning and special facets of a bilingual curriculum extending beyond simple language teaching are presented.

Chapter V presents a short description of the type of personnel which might best implement the program, the program's relation to the community it serves, and its general applicability to different situations. These two chapters detail the program and its implementation and thus form the nucleus of the dissertation.

Although the program was prepared for a specific bilingual (Spanish-English) community and village setting, it is expected that the model will be equally applicable to other communities and colleges throughout the country.

Order No. 76-14,730, 142 pages.

CROSS-CULTURAL AND OTHER PROBLEMS AFFECTING THE EDUCATION OF IMMIGRANT PORTUGUESE STUDENTS IN A PROGRAM OF TRANSITIONAL BILINGUAL EDUCATION: A DESCRIPTIVE CASE STUDY

Grove, Cornelius Lee, Ed.D.
Columbia University Teachers College, 1977

Sponsor: Louis Forsdale

This descriptive case study focuses on the secondary-level program of transitional bilingual education (TBE) for immigrant Portuguese students in a town in Massachusetts. The original objective of the research was to discover and describe the cross-cultural problems encountered by the older immigrant students as a result of their moving abruptly from the educational milieu of Portugal to that of the United States. An equally important objective, adopted after the

field research was underway, was to describe the numerous practical problems faced by the secondary-level TBE teachers. The research also enabled some conclusions to be drawn about the cross-cultural problems of the immigrant parents in their relations with the system of education prescribed for their children in Massachusetts. With regard to the Portuguese, none of these problems had been the subject of a major research effort prior to this study.

The field research was carried out in April, May, and June of 1976. The two principal research tools were intensive classroom observations and in-depth interviewing. Numerous informal observations and discussions also contributed to the findings. No hypothesis was tested. The goal was to provide an empathetic qualitative description of the problems and feelings of all connected with the education of secondary-level immigrant Portuguese students in the host school district in Massachusetts. (Some quantitative data are included in appendices.)

The principal limitations of the study are that research was carried out in only one school district, that research was not carried out in the schools of Portugal, and that the immigrant students were interviewed only once (instead of repeatedly over a long period). The research design included steps to minimize the effects of each of these limitations.

Following an introductory chapter, the study is presented in three parts. Part One includes detailed descriptions of life and work in the secondary-level bilingual classrooms and of other facets of the TBE program such as integration of bilingual and regular students, bicultural education, and the activities of the Portuguese students in special subject classes such as industrial arts. Part Two includes thirty-three edited interviews with students, teachers, counselors, administrators, School Committee members, parents, and others. Part Three presents the author's conclusions and recommendations.

The cross-cultural problems of the students center around the discrepancies between Portuguese and American schools relative to social and pedagogical freedom. These problems are related to the American tendencies to favor operational thinking (based on inductive reasoning) and to overprotect children. The problems are reconceptualized in terms of the field independent versus field sensitive dichotomy developed by Ramírez and Castañeda (1974). The general conclusion is that the problems faced by the students are seldom incapacitating, although the older the student when he immigrates, the greater the degree of cross-cultural difficulty to be overcome.

The cross-cultural problems of the Portuguese parents center around their assumptions and expectations about the proper role of parents in the formal educational process, in contrast to the assumptions and expectations of Americans and the particular demands made upon immigrant parents by the Massachusetts TBE Act.

The practical problems of the secondary-level TBE teachers are chiefly the result of the excessively heterogeneous nature of their classes and their responsibility for teaching all the substantive subjects, including two languages. Other

problems include the side effects of deliberate integration, the lack of suitable materials, responsibility for non-academic matters, and the lack of a suitable curriculum. The teachers' problems are viewed as being very serious, and the question is raised whether intensive instruction in English as a Second Language might not be preferable to transitional bilingual education in dealing with those students who are thirteen or older when they immigrate.

Order No. 77-14,722, 407 pages.

UNSTABLE URBAN BILINGUALISM: THE MOTHER TONGUE SOCIALIZATION OF THE CHILDREN OF GREEK IMMIGRANTS IN TORONTO, CANADA

Orlowski, Duane Edmund, Ph.D.

University of Illinois at Urbana-Champaign, 1977

Fishman describes European immigrant speech communities in North America as exhibiting bilingualism without diglossia. Such communities are characterized by rapid social change and the abandonment of prior norms before the consolidation of new ones (1967).

The Greek community of Metropolitan Toronto is a relatively young speech community. Between World War II and the early 1970's it has grown from about 10,000 to approximately 60,000 individuals with a peak in immigration occurring during the past 15 years. There are large numbers of first and second generation speakers of Modern Greek within the city. There are 5 private and 40 community run language schools at which approximately 7000 children are taught to read and write Modern Greek. Although children learn Greek as their mother tongue English is learned rapidly at school age and quickly becomes the dominant language. Use of English increases as the social world of second generation speakers expands beyond the bounds of the family into peer networks and the wider society.

This study examines the developmental emergence of case inflections among second generation children in order to examine the manner in which the parallel knowledge of the appropriate situated use of language informs and influences the internalization of rules of the native language. It compares the linguistic knowledge of first and second generation speakers in order to view empirically the manner in which the social distance between generations affects language learning and contributes to mechanisms underlying language change in unstable bilingualism.

The study uses tests of syntactic generalization, e.g., the Berko test, comprehension, and imitation as well as translation tasks, free speech in informal interview and observed daily interaction among children, parents and teachers. Results of the generalization tests, translation tasks and a sociolinguistic interview are discussed in the thesis. Eliciting procedures were used with over 100 children aged 5 through 14 as well as with first and second generation adults. Considerable time was spent observing child and adult interaction in homes, neighborhood, day care centers and Greek schools.

Kiparsky has proposed that grammars are subject to substantive constraints on their output that constrain the learnability of linguistic rules and direct the nature of phonological and syntactic change. They are seen to compete with other variables, considerations of formal simplicity, and stylistic and social factors to produce certain "optimal outputs." This study attempts to describe the manner in which these "paradigmatic constraints" operate in an unstable bilingual speech community. Its purpose is to help characterize the social and functional conditions under which constraints on learnability come to override social, stylistic and simplicity considerations in providing such optimal outputs. The relative force of such constraints is seen as related to the use to which a particular language is put: to the nature of the speech community and the function of the language within that community.

Results indicate that children acquire case inflections through a process of overgeneralization that Slobin has described as "inflectional imperialism" (1968). All case inflections are governed by number, gender, case and stem type. Number appears to be acquired relatively early, gender somewhat later and case is the last feature to be fully internalized. The test elicited two types of interference—"heavy interference" in which English syntactic and phonological rules were applied and "moderate interference" in which only English phonological rules were misapplied. The use of the Berko with bilingual speakers allows one to tap aspects of interference that may have eluded more traditional techniques. Moderate interference was seen to interact with inflectional imperialism to produce a tendency to select the feminine /-es/ ending as the dominant plural ending among second generation speakers.

With the genitive singular second generation speakers were seen to internalize partial forms rather than full forms. In acquiring control of the genitive plural, which involves aspects of number, gender, and case different aspects predominate at different developmental stages. Significant differences in linguistic and social knowledge of the genitive plural occurred between the first and second generation. For first generation speakers /ton/ forms are strongly socially conditioned and used systematically. For the second generation paradigmatic constraints operate to level case endings and select for the unsystematic alteration of accusative /tous/ and genitive /ton/ forms.

With the second generation number and gender appear to function as "strong"

grammatical categories at the expense of case. In Modern Greek the /tous/ form is maximally transparent because the accusative singular and genitive plural articles are homophonous. Number appears to override case in the acquisition of the marking of plural possession. In addition considerations of maximal transparency, paradigm regularity (Kiparsky 1972) and the elimination of phonotactic markers through the use of partial forms interact to produce differences in first and second generation case paradigms. Learnability constrains the acquisition of the genitive plural while number is conserved so that accusative forms are used by second generation speakers where first generation speakers use the genitive plural. Should conditions give rise to the development of second generation norms the masculine accusative plural form would become the form for the genitive plural. A similar process may have been instrumental in the formation of Cypriot Greek.

Second generation speakers are, however, encapsulated within an English speaking society and bound to the speech norms of the first generation. Second generation speech forms are viewed as deviations from norms of the homeland rather than as normative speech characteristics of a unique group. Such immigrant speech communities are interesting in that they provide significant empirical data on suggestions put forth by generative grammarians that the locus of certain types of linguistic change are to be found, to a substantial degree in discontinuities in the transmission of the language to each new generation.

However, changes in the grammars between generations are not discontinuous but must be evaluated in the same way for several generations in order to produce categorical change. Changes initiated in second generation speech are thus not fully actuated but remain in a persistent state of flux exhibiting considerable variability. Such speech communities exemplify the point that: "Not all variability and heterogeneity in language structure involves change; but all change involves heterogeneity and variability" (Weinreich, Labov and Herzog 1968: 188).

Order No. 77-14,999, 346 pages.

LINGUISTICS

STUDIES IN ITALIAN-ENGLISH BILINGUALISM

(Publication No. 6457)

Walburga von Raffler, Ph.D.
Indiana University, 1953

This dissertation attempts to solve the controversial issue of bilinguals making use of one, two, or one and half phonemic systems.

The methodology followed tries to be objective and scientific. Almost all speech samples have been recorded on tape and all tapes try to represent the natural speech of each informant, through both a questioning period and a consecutive discourse of a story-type by the informant only. Much useful information has also been obtained by registering conversation periods of the informants among themselves.

The study proper was preceded by a general inquiry among immigrants with a variety of original language backgrounds. One important conclusion based on this survey is that there appears to be a sharp division between phonology on the one hand and morphology, syntax and lexicon on the other.

In the great majority of cases of other than true monolinguals, the traditional definition of "native language" holds only in respect to phonemics, but does not make sense in regard to lexicon and syntax; whereas, if we define as "native language" the language or languages most familiar to an individual, we sometimes have to exclude the phonemes.

After a rapid survey of the principal problems of individual and group bilingualism with special regard to Italo-American immigrants, the American English and the Italian phonemic systems of a monolingual speaker for each language are given separate analysis and are then compared with each other. The differences seem to be stronger in the realm of phonetics than in phonemics.

The English spoken by the same monolingual Italian informant has been examined as to its points of "mispronunciation" concluding that monolingual speakers base their second language on the phonological system of their first (native) language. That is, they use one native phonemic system on which they try to superimpose additions or alterations in order to talk the second language.

The main corpus of the dissertation consists in the phonemic analysis of the American English and the Siculo-American of a bilingual second generation Italo-American informant. Morphology and syntax are briefly examined.

By second generation I mean an immigrant who came to this country either before school age or was born in this country of non-English speaking parents.

The comparison of the American English and the Italo-American speech of the same bilingual informant leads to the conclusion that bilinguals on the phonological level operate with two separate systems, while the division is not so clean-cut in lexicon, morphology and syntax.

It seems, therefore, that in the speaker's habits a fundamental difference between "phonetics" and "semiotics," the former being concerned with asemantic items, while the latter is based on meaning, can definitely be established.

Microfilm copy of complete manuscript of 129 pages, \$1.61. Enlargements 6" x 8", 10¢ per page. Library of Congress card number MicA54-208.

A DIALECT STUDY OF SAN ANTONIO, TEXAS: A BILINGUAL COMMUNITY

(Publication No. 25,178)

Janet Beck Moseley Sawyer, Ph.D.
The University of Texas, 1957

Supervising Professor: Dr. E. Bagby Atwood

This study was conducted for the purpose of contributing to the survey of the dialect areas of the United States which was begun in the East under the supervision of Professor Hans Kurath. The survey of Texas and the surrounding areas of the Southwest is now under way under the supervision of Dr. E. Bagby Atwood of the University of Texas. The methods used in the Linguistic Atlas of the eastern states have been followed in this survey.

In this survey seven native English-speaking informants and seven informants of Spanish-speaking background were used. Much of the material in the dissertation is concerned with comparisons between the two groups in their use of English.

Chapter I presents the history of the community and explains the methodology of the survey. Chapter II presents the pronunciation of the seven Anglo speakers, then the pronunciation of the Latin speakers, with an analysis of the particular features of English which are found to be difficult for them. Chapter III contains an analysis of the vocabulary, pointing out (1) the regional forms which are typical of dialect areas in the East; (2) the vocabulary which is typical of Texas and the Southwest; (3) words which are obsolescent in the urban area; and (4) a comparison between the Latin and Anglo vocabulary. Chapter IV contains a

summary of the inflexional forms used by the informants. Chapter V presents a summary and evaluation of the results of the survey; and Chapter VI gives a complete listing of the work sheets with the responses of the individual informants in inventory form.

It was found that speech of the Anglo informants of San Antonio is very representative of the Southern element of the early settlement groups. Evidence is found in such features as: (1) the "vocalized /r/"; (2) the diphthongal /æ y/; (3) the monophthongal "long i": [a.] in *five*; (4) the diphthongal /ɔw/; (5) [I] in certain unstressed syllables: *Dallas*, *wanted*; (6) /iw/ after /t/, /d/, /n/: *tune*, *due*.

The lexicon of the San Antonians is also strongly Southern, but has been greatly influenced by the rapid urbanization of the community. Modern city life has caused a wide gap between the vocabulary of the city dwellers and the older members of the community who have a rural background.

The difficulties of the Latin informants in acquiring the English of the region are analyzed in detail. These include such difficulties with segmental phonemes as the use of [i] for /l/, of [s] for the /z/ phoneme, etc. The placement of stress is also shown to be a major difficulty.

In general the Latin informants lack the older regional words which might be expected to be acquired in the home. Their main problem seems to be one of *acculturation*, that is, the elimination of *social barriers*.

331 pages. \$4.25. Mic 58-4331

SELECTED PROBLEMS OF BILINGUALISM AMONG IMMIGRANT SLOVAKS

(L. C. Card No. Mic 59-4959)

Goldie Ruth Piroch Meyerstein, Ph.D.
University of Michigan, 1959

This thesis applies principles of modern linguistic science, and more particularly of recent studies in bilingualism, to the description of some speech features characteristic of Slovak immigrants in the United States. This description is the result of the analysis of tape records and other recordings made of the speech of twenty-two speakers deemed representative of their speech communities. The informants interviewed are residents of Binghamton (Southern Tier of New York State) and the Chicago area, two of the major centers of Slovak immigrant settlement in America.

Attention in this study centers on deviations of Immigrant Slovak from the norms of Standard Slovak, but the investigation also extends to European Slovak dialect traits and to English as spoken by Slovak immigrants. The linguistic behavior of the interview subjects is reviewed against the background of their cultural and historical traditions. The linguistic aspects of Immigrant Slovak speech are compared to the findings of similar studies previously undertaken in other areas, e.g. American Norwegian, and of descriptions not specifically linguistic in such areas as Immigrant Czech.

The basic features of language interference demonstrated in this dissertation are in the nature of homophonous, synonymous, and homologous diamorphs, and assimilated versus unassimilated loanforms. Assimilation of forms borrowed into the speech of Slovak immigrants is studied in terms of types and degrees, and subjected to statistical tabulation of relative incidence of language interference for first and second generation immigrant speakers. The grammatical areas spotlighted in this investigation are the formation of words, prepositions, noun case forms, and function words of the article-type. The study of these various areas is accompanied by a discussion of problems of evaluation and interpretation of data and findings.

Among the most noteworthy conclusions from this study is the progressive loss of Standard Slovak grammatical (case) and lexical (word-choice) distinctions in Immigrant Slovak, and the loss or hypercorrective "misuse" of English distinctions in Slovak immigrant usage.

This study, it is hoped, will be a contribution to the non-immigrant's understanding of the immigrant's language features and their communicative significance and, through the comprehension of the immigrant Slovak's speech patterns, to the appreciation of his cultural traditions and his way of life.

Microfilm \$2.70; Xerox \$9.40. 208 pages.

AN ANALYSIS OF A FINNISH-ENGLISH BILINGUAL CORPUS

(Order No. 66-14,851)

Meri Kaisu Tuulikki Lehtinen, Ph.D.
Indiana University, 1966

This study consists of an analysis of a narrative text collected from a third generation Finnish-American informant. The text is basically in Finnish, but introduced into it are large numbers of English items, some of which are accommodated to the Finnish linguistic system in greater or lesser degree.

Part I of the study contains a comparison of the informant's Finnish with Finnish as spoken in Finland and an analysis of the deviation between the two, including detailed discussion of the possible causes of the deviation. Considerable specific English influence can be detected, especially in the phonology and the syntax. Besides such specific English influence there also exist deviations which apparently are to be attributed to a combination of the informant's relatively low competence in Finnish and non-specific interference from the over-all systemic differences of English from Finnish. Such influence is usually manifested as a reorganization of features extant within the Finnish system itself. For example, the phonetic features connected with the Finnish phonemic length distinction are partly reinterpreted in the informant's Finnish phonology. This type of influence is most conspicuous in the morphological system, where numerous analogical formations occur, especially in subsystems which have no English counterpart, for example in the consonant gradation subsystem.

Part II of the study contains a set of rules for introducing English elements into the Finnish stream of speech and for accommodating them to the Finnish system. The code-switching rules proceed from those governing the switching of entire sentences to those governing the switching of major and minor phrases and of single nouns, adjectives, verbs and adverbs. It is found that while the switching of entire sentences is not limited by strictly grammatical rules, severe non-grammatical restrictions apply to such switching. The rules for code-switching syntactic items of less than sentence length are found to be best formulated in terms of so-called surface grammar, although there are indications that the deep structure also affects the code-switching mechanisms. The code-switching of single nouns, adjectives and verbs proves to be of pivotal significance in the entire code-switching and code-accommodation system, in that the mechanisms for switching longer items can be regarded as extensions and outgrowths of the switching of single items of these word classes; and on the other hand, only single items of these word classes can be processed by the morphological and phonological code-accommodation rules.

The morphological code-accommodation component consists principally of rules for affixing conventional Finnish stem formants to English nouns, adjectives and verbs. Only items which have been processed by the morphological code-accommodation rules can enter the phonological code-accommodation component. Phonological accommodation is accomplished by converting English phonemes into corresponding Finnish ones. Not all phonemes in any given English stem have to be accommodated. Thus, the same English stem may occur

in various stages of phonological accommodation to Finnish. The conversion of phonemes appears to rest on two major bases for identifying an English sound with a Finnish one: 1) phonetic similarity and 2) structural correspondence, as defined in the study in terms of a mapping operation in which the distinctive features of English phonemes are mapped onto the distinctive features of Finnish phonemes. Phonetic similarity is found to take precedence over structural correspondence in the cross-code identification of sounds.

Microfilm \$3.60; Xerography \$12.60. 280 pages.

**A BILINGUAL DESCRIPTION OF SOME LINGUISTIC
FEATURES OF PIDGIN ENGLISH USED BY JAPANESE
IMMIGRANTS ON THE PLANTATIONS OF HAWAII: A
CASE STUDY IN BILINGUALISM. (with) VOLUME II:
APPENDICES**

(Order No. 69-22,449)

Susumu Nagara, Ph.D.
The University of Wisconsin, 1969

Supervisor: Professor Murray Fowler

This study is a description of linguistic interferences observed in pidgin English used by Japanese immigrants on the sugar plantations in the state of Hawaii. (This type of language is called PEJH in this study.) These linguistic interferences resulted in Hawaii from contacts of speakers of Hawaiian, (British and American) English, Portuguese, Cantonese, Japanese, (Puerto Rican) Spanish, Korean, Ilocano, Visayan, and a few other European and Pacific languages. In this study, the historico-sociological background of these language contacts is described in Appendix I of approximately 200 pages.

Linguistically, of the instances of linguistic interferences among these languages, the study of those between Japanese and American English is specially emphasized and carried out based upon the contrastive analysis between Hiroshima Dialect of Japanese and General Midwestern Dialect of American English. The linguistic analysis of PEJH is attempted inductively based upon the corpus of recordings of dialogues in pidgin English between immigrant Japanese and speakers of non-Japanese languages in Hawaii. After discussing the merits and demerits of transformational grammar and tagmemic grammar when they are

applied to bilingual descriptions, actual analysis is carried out based upon the tagmemic hierarchy. The phonological structure of PEJH is described based upon a diaphonic system as proposed by Einar Haugen in 1954. The interpretation of phonological interferences observed in PEJH in terms of the componential features of segmental phones is not attempted in this study. The syntagmatic description of PEJH is carried out with a view to clarifying the levels of tagmemic hierarchy on which the influence of English or Japanese is dominant. The paradigmatic description of PEJH is limited to the morphemic level.

In addition to the major goal of describing the structure of PEJH, this study is attempted with the following five subsidiary objectives in mind: (1) to examine Greenberg's theory concerning the predominance of unmarked features as the result of linguistic neutralization in relation to the phenomena of interference reflected in the structure of PEJH, (2) to examine Weinreich's proposal concerning the hierarchy of the degree of linguistic integration in terms of the boundness of morphemes, (3) to compare the features of tagmemic grammar and transformational grammar in terms of their application to the syntax of bilingual descriptions, (4) to explore the significance of the semantic theory as recently advocated by James D. McCawley when it is applied to bilingual descriptions, and (5) to attempt to clarify the degree of influence of Chinese pidgin on pidgin English used in Hawaii by comparing the linguistic features of PEJH with those of Chinese pidgin English analyzed by Robert A. Hall, Jr.

A 14-page glossary of special terms on bilingual studies is added after the Table of Contents.

M \$7.70 X \$27.25 605 pages.

**LANGUAGE TEACHING IN THE BILINGUAL COMMUNITY:
A TRIPOLAR CONTRASTIVE ANALYSIS OF THE SOUND
SYSTEMS OF ENGLISH, CATALAN AND SPANISH FOR
THE PURPOSE OF TEACHING ENGLISH TO BILINGUAL
SPEAKERS OF CATALAN AND SPANISH**

George Robert Bozzini, Ph.D.
Georgetown University, 1971

The rationale for this dissertation is the hypothesis that a contrastive analysis of the native and the target languages is important in foreign language teaching. Since most students of English in Spanish Catalonia are bilingual in Catalan and Spanish, teaching materials developed for that community should be based on a

tripolar contrastive analysis which concerns itself with Catalan and Spanish as the students' native languages and English as their target language.

In this work we deal only with the systems of segmental sounds in the three languages. The prosodic features of stress and intonation, boundaries and other features, are discussed only insofar as they concern the selection of consonant and vowel segments.

The phonological theory applied here is based on the generative model Japré's Jakobson, Fant, Halle and Chomsky. This theory views morphemes as sequences of phonological segments. The segments are in turn regarded as complexes of binarily selected phonetic features. The minimum number of features specified for each segment is the set of obligatory features which distinguish each systematic phoneme. In certain environments, and/or under certain stylistic conditions, the phonetic make-up of the phonemic segments may undergo modifications in terms of loss of or change in the plus-minus value of, one or more of the initially specified non-redundant features; or, the complex may acquire a new feature. The codification of changes in the feature make-up of the segments constitutes the phonological rules of the language. Such rules must be ordered so as to generate proper phonological sequences in the language.

Theoretically, a comparison of the ordered rules of three independent linguistic systems should provide a metric in determining how similar or dissimilar those systems actually are. That is to say, the more rules two linguistic systems share, the more similar they are. Spanish and Catalan, both Romance languages, share approximately 50% of their ordered rules. English shares 22% of its rules with Catalan, 8% with Spanish. Approximately 70% of the rules of English remain unshared.

On the other hand, Spanish and Catalan share 92% and 72% of their phonemic inventories, respectively, with each other. English shares 73% of its phonemic inventory with Catalan, 57% with Spanish. Only 24% of the English phonemes are unshared. We conclude, therefore, that the theory which explains differences among linguistic systems in terms of underlying and shared deep structure rules is the more reliable metric in determining how similar or dissimilar those systems are.

One of the most significant implications of the contrastive analysis undertaken here is the establishment of a hierarchy of difficulty of the phonological problems which bilingual Catalan-Spanish speakers can be expected to encounter in learning English. At the very least, such a hierarchy enables the teacher of English to focus attention on specific areas of English phonology which differ from the sound systems of Catalan and Spanish in very specific ways. In a broader sense, it awakens in the teacher a sensitivity to another—the linguistic—of the many (psychological, neurological, cultural, etc.), areas in which language learners experience difficulty.

Order No. 71-28,053, 242 pages.

A DESCRIPTION OF THE SPEECH OF IMMIGRANT AND SECOND GENERATION GALLEGO-SPANISH SPEAKERS IN NEW YORK CITY, A STUDY IN BILINGUALISM

Medardo Gutierrez, Ph.D.
Georgetown University, 1971

The object of this study is to describe the interference of Gallego-Spanish and English on one another in the speech of Gallegos residing in Metropolitan New York. The description includes a contrastive analysis of the phonology of Gallego, Castilian Spanish and New York City English plus a summary of phonological influences in borrowing. Borrowings are also classified according to their morphological nature.

The group studied consisted of immigrant and second-generation speakers. Fifty informants were interviewed. The group included professionals, skilled workers, unskilled workers, and children of both sexes.

Gathering was by individual interviews which were tape recorded in their entirety.

Those taped portions which contained instances of phonological and lexical interference were phonetically transcribed, analyzed, and described.

The study sought to answer the following theoretical questions:

- 1) Is there more interference at phonological and/or lexical levels from the dominant language to the subordinate language, or the reverse?
- 2) What changes are imposed on the phonemic systems of each language?
- 3) Is there a resistance to the use of loans?
- 4) When immigrants speak Gallego-Spanish does English interfere at both phonological and lexical levels?
- 5) When the second generation speaks English does Gallego-Spanish interfere at both phonological and lexical levels?
- 6) Are more English loans likely to occur in the Gallego-Spanish speech of immigrants?
- 7) Are more Gallego-Spanish loans likely to occur in the English speech of immigrants?

Gallego phonology is described in terms of seven vowel phonemes with twelve onglides, eleven offglides, and six triphthongs; seventeen consonants; three stresses; and three pitch levels.

Castilian Spanish phonology is described in terms of five vowel phonemes with ten onglides, nine offglides, and four triphthongs; twenty consonants; two stresses; and three pitch levels.

The descriptions include extensive examples of the distribution of pure vowels and glides, consonants and consonant clusters.

New York City English phonology is described in terms of seven vowel phonemes with fifteen offglides; twenty-four consonants; four stresses; and four pitch levels. New York City English is an R-less dialect and the loss of post vocalic R results in an elaborate set of vowel glides.

Phonological interference occurs in both directions but preponderantly from the dominant language to the subordinate. The most numerous instances of interfering phonic factors are observed in the English speech of immigrants, and considerable fewer in the Gallego-Spanish speech of the second generation.

Lexical interference occurs in both directions but preponderantly from the dominant environment; therefore, the greater number of loans (English) are observed in the Gallego-Spanish speech of both groups.

The almost total absence of English derivative and compound loan-blends is indicative of the avoidance by the Gallego-Spanish speaker of tampering with the morphological and syntactical norms of Spanish.

The unassimilated pure English loan word is the domain primarily of the second generation speaker while the partly and wholly assimilated pure loan-words that of the immigrant speaker.

The occurrence of English homologous loanshift extensions shows that the Gallego-Spanish speaker is also vulnerable to deceptive cognates.

The occurrence of Spanish loans in English speech is preponderantly the domain of the immigrant speaker on a better than a 2 to 1 ratio. The only case of a preponderance of second generation contributors is the wholly assimilated pure Spanish loanword in the stream of English speech; understandably so since almost without exception English is dominant for this group.

Order No. 71-25,227, 270 pages.

VERB-SYSTEM CHANGE IN SANTA CATARINA (MORELOS) NAHUATL: ITS RELATION TO BILINGUALISM

Karen Ilse Dakin, Ph.D.
The University of Wisconsin, 1972

Supervisor: Professor Valdis J. Zeps

Verb-system change in the Nahuatl spoken in Santa Catarina Zacatepec, Morelos, Mexico, is investigated as it can be traced from the sixteenth century to the present. Modern data were collected from speakers of varying ages, sex, and bilingual ability in the village. These data were then compared with Classical

Nahuatl sources dated in the sixteenth century from Tepoztlan and the Valley of Mexico to determine the innovations.

Since the village is presently completely bilingual and has been in contact with Spanish over a long period of time, the role of Spanish influence is investigated as a possible initiator of change and as an influence in directing change.

Syntactic change is discussed in terms of its effects on the position of rules within the grammar as they lie between deep and surface structure, using Chomsky's *Aspects* model. Further considerations are made concerning the Prague School suggestions that languages have both central and peripheral areas and that the peripheral ones are those most subject to change. Rules involved in change are defined as central or peripheral in terms of their positions within the partial transformational grammar presented for Nahuatl.

The specific cases of verb-system change treated are the use of verbal suffixes and the passive-honorific—reflexive-impersonal construction interrelationships.

In the modern Santa Catarina Nahuatl dialect there are fewer verbs used as verbal aspect suffixes on main verbs and more used in compound analytic constructions. The Analytic constructions follow the common Spanish pattern of compound verbs, while there is no parallel construction in Spanish to the verb-suffixing construction. The role of Spanish influence has been one of supporting the change rather than one of initiating it, since Classical Nahuatl does have compound analytic constructions. Change has occurred in the sets of verbs used in the constructions.

Santa Catarina Nahuatl has lost the Classical Nahuatl passive suffixes as such, using these same suffixes to form honorific forms in the third person instead. The constructions in modern Santa Catarina Nahuatl for passive, impersonal, and reflexive in the third person are formed using the same verbal construction, which thus is ambiguous. Some speakers avoid the ambiguity by borrowing the Spanish impersonal construction. The role of Spanish in this case is also one of supporting tendencies already present in the language, with the exception of the direct borrowing.

Both cases of verb-system change in the Santa Catarina Nahuatl dialect involve simplification of the morphological structure and a tendency toward analytic constructions. However, different levels of the transformational component are affected, so that no conclusive evidence can be offered to support the thesis that the peripheral areas of Nahuatl grammar are those that have been most subject to change. The influence of Spanish is one of reinforcement of structural tendencies.

Order No. 72-22,082, 139 pages.

THE PRODUCTION AND RECOGNITION OF GRAMMATICAL AND UNGRAMMATICAL ENGLISH WORD SEQUENCES BY BILINGUAL CHILDREN

Frank Paul Pialorsi, Ph.D.
The University of Arizona, 1973

Director: Herbert B. Wilson

The purposes of this study were to measure the variance between the recognition and production of bilingual fourth graders, to what extent the first language (Spanish) interfered with the second (English), and which patterns might yet be unlearned by both native English speakers and non-native English speakers. Comparisons between the performances of bilingual program and non-bilingual program groups were made to determine whether or not there would be significant differences in their abilities to recognize and produce correct English grammatical sequences.

Since no reliable test of this type existed for bilingual children, the study first involved the constructing of a test of basic English sentence types for bilingual children. Initial pilot testing of the test items took place in a Tucson, Arizona, elementary school with thirty subjects in groups of ten. These groups were not included in the final testing program.

PROCEDURES

Test items were adapted from a diagnostic test for students of English as a second language by A. L. Davis. The subjects were ninety native Spanish-speaking fourth grade pupils who had participated three or more years in any of the three bilingual programs or any of two non-bilingual programs in southern Arizona schools. The groups were further classified as urban (Tucson, Arizona) and border (Nogales, Arizona). In addition, Part I of the test was given to twenty native English speakers at the fourth grade level and of a socio-economic background similar to that of the five native Spanish-speaking groups. This was done to determine whether or not the native English speakers are significantly different from the non-native English speakers in their ability to recognize correct English grammatical sequences.

Part I of the test was made up of thirty-four multiple choice items based on a contrastive analysis of English and Spanish grammar (Recognition). Part II consisted of the correct items of Part I in their Spanish equivalents and required the subjects to write the correct English equivalents (Production). There was at least a one-week interval between the administration of Part I and Part II of the test.

RESULTS

The results of the study showed that:

1. The native English-speaking groups differed from the five Spanish-speaking groups in their Recognition performances.
2. There were no significant differences among the five Spanish-speaking groups in their Production performances.
3. There were no significant differences among the five Spanish-speaking groups in their total test performances.
4. There were no significant differences between the three bilingual program groups and the two non-bilingual groups in their Recognition performances. It appears that the non-bilingual program subjects performed higher on the Recognition scale.
5. There were no significant differences between the urban groups and the border groups.
6. There were no significant differences between sexes.
7. There was a positive correlation between the subjects' recognition and production performances.

CONCLUSIONS

On the basis of this study, the following conclusions were made:

1. Problems with basic grammatical English sequences among bilingual children can be identified.
2. Native English-speaking children had less difficulty in identifying the correct basic sentence types presented than the bilingual groups.
3. The five native Spanish-speaking groups, whether in structured bilingual programs or not, showed no significant differences in their Production performances.
4. At this point in their English language development, the non-bilingual program groups in the study seem to have an advantage over the bilingual groups in their abilities to identify correct English grammatical sequences.

Order No. 73-28,787, 119 pages.

SHARPNESS IN YIDDISH: A FIFTH RIDDLE IN BILINGUAL DIALECTOLOGY

Bratkowsky, Joan Gloria, Ph.D.
Indiana University, 1974

This dissertation compares the isoglosses for the sharpness feature in Yiddish and the coteritorial languages. The sharpness feature, as it occurs in the languages of Eurasia, consists of consonantal sharpness which originated by assimilation to following front vowels. Some of the Eurasian languages have lost certain final front vowels and now have sharp and plain consonants contrasting in final position; however, the sound substitutions made by the child acquiring the language and by the adult learning a foreign language, as well as experimental evidence, show that even in these languages, prevocalic sharpness is conditioned by the following vowel. Of the languages coteritorial with Yiddish, the sharpness feature occurs in Russian, Ukrainian, Belorussian, Polish, Old Czechoslovak, Lithuanian, Latvian, and Rumanian; it does not occur in Hungarian or German.

Information on Yiddish dialectology was obtained from the Language and Culture Atlas of Ashkenazic Jewry. In the Yiddish of a continuous area comprising most of the Ukraine, Southwest Belorussia, and a small part of Poland, dentals become sharp before *i*. The absence of sharpness in the Yiddish west of this area is due to this being the western periphery of the Eurasian sharpness area. The absence of sharpness in the Yiddish east of this area is due to the recency and/or superficiality of the contact with the coteritorial languages.

Order No. 74-22,756, 185 pages.

BILINGUAL INFORMATION PROCESSING: THE EFFECTS OF COMMUNICATION ON SEMANTIC STRUCTURE

Barnett, George Aaron, Ph.D.
Michigan State University, 1976

Based upon social scientists and philosophers writings about the notion of meaning, a paradigm for the measurement of meaning is established. The four basic principles of the paradigm are that the meaning of any lexical item can only be determined through its relation with other symbols. The most important of these relations is semantic similarity. The other principles are that the measured meanings must be consensual, dynamic and empirically fruitful. Next, the existing methods for the measurement of meaning are critiqued. An argument is made that free association, free recall, Osgood's semantic differential and non-metric multidimensional scaling are inadequate because each fails to meet the established principles. However, a modified version of classical metric multidimensional scaling may be adopted as the paradigm for the measurement of meaning.

Next, a single substantive problem, the processing of information by bilingual individuals is discussed. This problem is of great social significance because of the bilingual's role in the transfer of information across linguistic boundaries. Bilinguals have been studied by psycholinguists concerned with how these people process linguistic information so that they may gain insights into how all people process language. By and large, psychologists have not been overly successful. One of the reasons sociolinguists point out is that the bilingual is not viewed as a member of a speech community. The author concludes that both perspectives must be employed in order to describe the communication behavior of the bilingual.

Based upon these two lines of research and the presented paradigm, the author suggests and tests eight hypotheses dealing with bilingual information processing. Canadian college students either monolingual or bilingual in French and English made up the sample. Metric M.D.S. was used to measure semantic structure. The results indicated that the semantic properties of lexical items rather than the symbol's language are the primary organizing principles of a bilingual's semantic structure, although the language attribute was of secondary significance; that the semantic space of English and French monolinguals as well as bilinguals in either language are all significantly different but can be described by the same number of underlying dimensions. The degree of discrepancy between a space produced by a group of bilinguals and a group of monolinguals will be less than the difference between the two monolingual groups was partially supported.

The mass media usage patterns of the three groups were significantly different. The English-language group used the mass media significantly more than the French-language group with the exception of television, where the pattern was reversed. The bilinguals total number of media hours exceeds both monolingual groups. Bilinguals used interpersonal channels to a significantly greater degree than monolinguals.

Finally, the author was unable to predict aspects of the bilinguals' semantic system from their exposure to the media and interpersonal relations in each of their languages.

The results are interpreted in light of the bilingual's potential embeddedness in social networks, the concept of language shift and the theory of bilingualism presented earlier.

Order No. 76-27,064, 263 pages.

THE EFFECT OF BILINGUALISM ON SIXTEENTH-CENTURY MEXICAN SPANISH

Grace, Lee Ann, Ph.D.

State University of New York at Buffalo, 1976

Though bilingualism has been a significant feature of Spanish America's linguistic history since the days of the Conquest, little or no attention has been given to the process of linguistic change as manifested in the speech of bilinguals during the colonial period, nor to the social context in which the language contact occurred. Loanword studies and dictionaries of indigenisms, which predominate among the works on language contact in Spanish America, usually provide no indication of the currency or spread of the items listed. Contemporary studies on bilingualism do of course focus on these matters, but they are based on actual field work, which is completely outside the realm of possibility for historical problems. Therefore, this study sets out to reconstruct through indirect evidence the sociolinguistic effects of bilingualism in the second half of the sixteenth century, or more specifically, the effect of bilingualism on the occurrence of indigenisms in the written Spanish of three important groups: native Spaniards, mestizos, and criollos.

Justified by the intensely retrospective nature of the study and the attendant scarcity of sources, the time period chosen spans the fifty years from 1550 to 1600. The second half of the century was selected to permit the study of the linguistic production of the criollos, which would have been impossible earlier. Mexico City was chosen as the logical center of the Nahuatl-speaking area to be investigated, since ethnic mixture was greatest there and so too the incidence of bilingualism.

From each of the eleven writers studied, samples of both indigenous and non-indigenous topics were extracted, and common or generic terms were tabulated. The need for background information concerning the authors required the consideration of formal written Spanish, as opposed to records somewhat closer to natural speech, such as transcriptions of court proceedings. Our original intention had been to sample both bilinguals and monolinguals from four major social/racial categories, but a number of factors prevented this. The mestizos, by the very circumstances of their birth, were almost bound to be bilingual, as were many of the criollos, thanks to their contact with Indian wetnurses and servants. Moreover, we had to abandon the fourth category (Indians), since we could not obtain a reliable source for the time period established. Thus, our monolingual control group was made up solely of native Spaniards.

The study analyzes the frequency of occurrence of indigenisms (how and by whom used and under what circumstances); examines the integration, both linguistic and social, of these items into Spanish; and provides detailed information

on the types of linguistic change resulting from language contact, particularly the competition between Nahuatlisms, Antilleanisms, and/or Spanish terms.

To a large extent our findings refute the assumption that the frequency of indigenisms would increase in proportion to an author's degree of bilingualism. Bilingualism *per se* did not seem to affect the frequency of indigenous items, which appears to be dictated instead by the topic and an author's intent. Nevertheless, it is apparent that bilingualism did indeed influence the form of the native terms used, in that bilinguals were much more likely than monolinguals to employ linguistically unadapted forms. Bilinguals also made greater use of socially unintegrated items. In other words, bilingualism affected *how* indigenisms were used, rather than *how many*.

The results of this investigation further suggest that though the lack of systematic data for chronologically remote periods may force us to leave unanswered many questions raised by the sociolinguists, the social spread of linguistic phenomena or their limitation to particular social categories are matters which can be studied with considerable success.

Order No. 76-17,016, 228 pages.

LAKHOTA BILINGUALISM: A COMPARATIVE STUDY OF LANGUAGE USE IN TWO COMMUNITIES ON THE ROSEBUD SIOUX RESERVATION

Grobsmith, Elizabeth Stanley, Ph.D.
The University of Arizona, 1976

Director: Keith H. Basso

The Rosebud Sioux Reservation in South Dakota is the setting for an exploration of communication, including a description of the speech styles available to the Lakota people; the situational constraints which influence speech selection; the bilingual nature of the community; the code switching or bilingual shifts which occur between selected speech styles; and the feasibility of bilingual education programs in light of the above data.

The study focuses on two contrasting reservation communities, Antelope and Spring Creek. Antelope is a large, newly created settlement with strong acculturative influences, while Spring Creek is a small indigenous community with strong ties to the traditional native culture. These communities reflect the full range of speech forms and usage on the reservation.

Preliminary investigation suggested several hypotheses: that distinguishable speech styles occur; that functional bilingualism is present; and that Antelope and Spring Creek are linguistically different. The hypotheses are tested with quantitative data derived from a schedule of interviews and ethnographic observation.

The hypotheses concerning speech styles propose the existence of two forms of the native language, Lakhota: formal and informal; two forms of English: standard and non-standard; and a limited use of sign language. The complete data indicate that formal Lakhota is a distinct style characterized by specific grammatical structures and situational constraints. It occurs in religious contexts and public oratory. Informal Lakhota is the conventional speech style, distinguished by different structural characteristics and wider contextual usage. Standard English is spoken by Lakhota with advanced education and by those with considerable off-reservation experience. Non-standard English is the more widely used variety. Its form differs among speakers according to the degree of native language dependence, the amount of participation in non-Indian contexts and the influence of regional dialects. Sign language is used primarily by elderly individuals for whom gesturing is a traditional part of communication.

The hypotheses concerning functional bilingualism state that English and Lakhota are currently maintained for use in different contexts. Comparative data from the two communities support this thesis of functional bilingualism. Although Spring Creek and Antelope differ greatly in the number of native speakers and the types of situations in which Lakhota and English are spoken, both communities consistently require the use of the native language for ritual activities. Similarly, other situations require that only English be spoken, such as official transactions. The data confirm that the languages are not used interchangeably and that English has not replaced Lakhota in certain contexts. Therefore, functional bilingualism exists on the reservation.

The possibility of introducing bilingual programs in both communities is explored. In the more acculturated community, native language instruction is appropriate because most children are unable to speak the native language. In the traditional community, however, bilingual programs are feasible because children, while learning English at home prior to attending school, still learn Lakhota as a native language and appear to be fully bilingual. Bilingual education, particularly in a community with lower levels of education, could potentially raise the level of education and promote literacy in both the native and English languages. Education alternatives are discussed in terms of their acceptability and viability for the individual communities.

Order No. 77-11,454, 363 pages.

**THE COMPARATIVE LINGUISTIC CONTROL OF RHYTHM
AND ARTICULATORY TIMING BY TEN SPANISH SPEAKERS
LEARNING ENGLISH AND BY A K'EKCHI-SPANISH
BILINGUAL**

Pinkerton, Sandra, Ph.D.
The University of Texas at Austin, 1976

Supervisor: Robert T. Harms

This dissertation is a detailed study of the comparative linguistic control of rhythm and articulatory timing and the interaction of prosodic and segmental phenomena and its implications for linguistic theory. Further, the results of the study allow better procedures for language learning programs to be suggested. The basis for this study was language transfer and language interference.

Chapter I reviews the phonetic and phonological literature on lengthening in final syllables and stress in many languages and the work done on external vowel sandhi in Spanish. I also argue that by looking at language acquisition studies and at the production and perception of language by bilinguals, we can more easily distinguish universal and language specific phonetic regularities. Further, cross language studies bring into focus grammatical relationships heretofore overlooked in single language treatments.

Chapter II investigates the acquisition of two suprasegmental durational regularities in English by Spanish speakers, specifically lengthening in final syllables and stress. Previously, investigators had viewed final lengthening as a boundary phenomenon, but were unable to explain the disparity between the amount of lengthening in English and in other languages. I argue that the lengthening gesture in English might be a compensatory gesture in relation to the prepausal pitch and intensity loss in declarative sentences consistent with the falling intonation for continuation and finality in such sentences, which gesture has become grammatically controlled and generalized to all prepausal cases beyond those in declarative sentences. Only 2 of the 10 Spanish speakers in this study learned to lengthen their final syllables in English during their learning program, these 2 being perceived as the best English speakers in their group by native English listeners in a Paired Comparison test. All of these English learners did, however, acquire the appropriate durational stress-to-unstress ratio in English. Their acquisition of this ratio correlated very highly with the ranking given them by native English listeners. Their acquisition of the stress-to-unstress ratio is probably due to the redundancy of phonetic factors contributing to the alternating rhythm of English, the stress-to-unstress ratio being one.

Chapter III investigates the relationship between syllable-timing, articulatory timing, syllable sequence type and external vowel sandhi in Spanish. Certain phonological rules contributing to the rhythm of K'ekchi, a Mayan language are included, as well. I argue that the Structuralist and Generative treatments of Spanish vowel sandhi, characterized by generalizations about vowel "shortening", vowel "dropping" and "glide formation" are inadequate because they focus exclusively on segmental phenomena, ignoring the interplay between suprasegmental and segmental phenomena. The rhythmic results of the phonological rules of K'ekchi are shown to interfere with the production of Spanish external vowel sandhi by my one K'ekchi-Spanish linguistic informant, in particular, in her slowest speech tempo. An increase in tempo is shown to remove all such interference. I conclude that an explanatorily adequate description of vowel sandhi must acknowledge the interplay of suprasegmental and segmental phenomena. Order No. 77-11,572, 194 pages.

THE INFLUENCE OF ENGLISH ON THE SPANISH OF BILINGUAL MEXICAN AMERICAN MIGRANTS IN FLORIDA

Riegelhaupt-Barkin, Florence, Ph.D.

State University of New York at Buffalo, 1976

Supervisor: Peter Boyd-Bowman

The purpose of this study is to determine the influence of English upon Spanish lexicon, phonology and syntax of Mexican American migrant workers in Florida. In pursuit of this goal, we sought information from three principal sources: a biographical interview, responses to the Pictorial Linguistic Interview Manual designed by Stanley Sapon (1957), and finally, information gleaned from recording actual casual speech, during which our informants were unaware of the presence of an "outside" interviewer.

Our main concern was not the degree of knowledge of each language, but rather what bilinguals did with each language, when, where and with whom they used them and to what extent.

We have divided vocabulary items into loanwords: unassimilated, partly assimilated and wholly assimilated, corresponding to the degree of phonetic integration of the English loanword. Also included under loanwords are loanblends, demonstrating partial morphemic substitution. The final category of

lexical influence of English includes loanshifts or calques, which substitute native morphemes. Our corpus lists vocabulary alphabetically, dividing it according to the above categories.

Our conclusions indicate that unassimilated English loanwords, although the least permanent, represent the largest category of borrowings. Informants used partly assimilated loanwords along with unassimilated ones. Since these loans represent only minor modifications of the English word, some can be attributed to our informants' Spanish accent carried over into English. More than half of the wholly assimilated loanwords occur more than once. We conclude that their complete assimilation into Spanish facilitates their transmission and acceptance within the speech community.

The fact that there is so little English influence in the Spanish phonology and syntax of our informants emphasizes the relative stability of these areas, especially when compared to the lexicon. Even though we notice extensive reliance upon English vocabulary in the speech of certain informants, their Spanish remains Spanish and not English in grammar and pronunciation.

We have discovered two distinct types of language switching in our investigation, each limited to a certain group of bilinguals. The first includes those informants who are sometimes unaware of which language they are speaking, using elements of one language to fill in items which they do not recall in the other. The second includes those informants who are aware of the language they are speaking at all times, switching back and forth from Spanish to English to display social or cultural solidarity with other speakers of similar backgrounds. The latter often have a good command of English and Spanish and are aware of the linguistic norms of one or both of the languages since many have been exposed to monolingual Mexicans in Texas and to bilingual programs in the schools. In organizing bilingual education programs, educators should recognize the differences between Chicanos who switch languages because they cannot distinguish between the two languages, or from an inability to recall Spanish lexical items, and those who use language switching deliberately in order to convey additional affective meaning.

Order No. 76-26,502, 249 pages.

SOCIOLINGUISTICS

BILINGUALISM AND BICULTURALISM IN A HUAVE COMMUNITY

(Order No. 67-3448)

A. Richard Diebold, Jr., Ph.D.
Yale University, 1961

The contact of two societies establishes a social situation wherein an individual may learn elements from a linguistic or cultural system other than his native one; elements thus learned in language or culture contact frequently affect the norms of the native language and culture, producing a variety of historical changes which this study calls 'assimilative.'

The purpose of this dissertation is to present a descriptive analysis of the linguistic and other cultural changes (and their interrelationships) which occur in a single case of the contact of two societies whose members speak different languages: that which presently occurs (and has been occurring since the mid-16th Century) between the Huave-speaking Mexican community of San Mateo del Mar and the Spanish-speaking national society in which it is an enclave.

Microfilm \$3.00; Xerography \$10.35. 226 pages.

MODERN GREEK AND AMERICAN ENGLISH IN CONTACT: A SOCIO-LINGUISTIC INVESTIGATION OF GREEK- AMERICAN BILINGUALISM IN CHICAGO

(Order No. 65-10,887)

Paul David Seaman, Ph.D.
Indiana University, 1965

This dissertation is an attempt to describe some of the essential tendencies of Modern Greek in contact with American English. It is primarily a study of the spoken vernacular based upon tape-recorded interviews with forty-one bilingual Americans of Greek descent of various generations.

The linguistic part of the dissertation is preceded by the analysis of 444 responses to a bilingual questionnaire designed to gain data on the socio-cultural background of Americans of Greek descent regardless of generation and linguistic status, and to reveal the functional role of Greek as a shifting language in the United States.

A demographic analysis gives a brief history of Greek immigration to the United States, and outlines the geographical distribution of the half million Americans of Greek descent, approximately a tenth of whom now live in the greater Chicago area. The diminishing use of the Greek language in America is statistically demonstrated, and attitudes of Greek-Americans of all generations toward language maintenance are presented in quantitative and qualitative detail.

The contact of the Greek and English linguistic systems results in a number of structural rearrangements of Greek on all levels of the language. The deviations from the standard Greek norm are mostly accounted for by bilingualism and the weakening or absence of adequate linguistic reinforcement.

Phonological interference is quantitatively more allophonic than phonemic in the Greek speech of most informants. Greek-American phonological interference is often two-directional. Many Americans of Greek descent, especially of the first generation, manifest incompleteness of the phonemic systems of both languages.

Although English bound morphemes are not introduced into American Greek, the weakening bonds with standard Greek do tend to endanger the integrity of the functional appeals of the formal markers in Greek. Most affected of all grammatical categories is gender. A neuterizing tendency is evident, but correct Greek grammatical gender is sometimes retained even for the English counterparts of forgotten Greek words! Order plays a large role in American Greek, both as a result of the contact with English and because of the lack of continuous contact with a generally accepted Greek norm. Increased use of prepositional phrases is another tendency which may be attributed either to inter-linguistic English influence or to an intralinguistic "drift" within the Greek language itself.

The general weakening of the *Sprachgefühl* results in many anacoluthons and multitudinous hesitation phenomena, as well as the loss of many phonologically conditioned morphophonemic alternations.

Only the simplest Greek verbal forms are commonly used in Greek-American speech. In the aspect system of the American Greek verb, the tendency is to eliminate the aspect opposition in favor of the imperfective. The redundant reiteration of the category of person of finite verb forms with personal pronouns is another manifestation of the influence of English.

The use of English lexical items in Greek contexts is widespread among Greek-American bilinguals. Most new lexical items are simply transferred from the

English unchanged. The number of English words introduced into American Greek with formal adaptation is probably only a few hundred words.

Many widespread lexical deviations are outright "errors" attributable not so much to contact with English as to the non-contact with standard Greek and the resultant weakening of the Sprachgefühl for Greek which is so readily observable in the American Greek speech of all generations.

Microfilm \$5.75; Xerography \$20.50. 451 pages.

SOCIOLINGUISTIC CONSIDERATIONS FOR BILINGUAL EDUCATION IN AN ALBUQUERQUE COMMUNITY UNDERGOING LANGUAGE SHIFT

Gloria Elaine Griffin Mallory, Ph.D.
The University of New Mexico, 1971

Duranes is a small, bilingual community in Albuquerque, New Mexico. The community is currently undergoing fairly rapid language shift from Spanish to English, and is also becoming involved, for the first time, with bilingual education in the elementary school.

One concern of this study is to consider bilingual education from a sociolinguistic perspective. Some of the political arguments leading to Title VII legislation are reviewed in light of sociolinguistic considerations, as are some of the major theoretical models of bilingual education. Implicit assumptions regarding questions of maintenance and shift are given particular attention, as such assumptions are a major influence on bilingual program development. A proposal for bilingual education in Albuquerque is analyzed by sociolinguistic terms.

The second major concern of this study is to review diglossia, a sociolinguistic construct particularly relevant to bilingual education. Suggestions are made for phenomenological-existential extensions of the theory which appears to be particularly appropriate to a subtle, socially responsive human function such as language choice for a bilingual. Some models from social psychology, clinical psychology, and psychiatry appear particularly applicable to research into the allocation of languages by bilinguals.

Methods for observing diglossia, and their underlying theoretical assumptions are discussed. Of particular interest is the ethnographical approach to acquiring language choice data; however, owing to the time required for acquiring data by this approach, suggestions are offered for shortening the methods, while maintaining their integrity. One method suggested is role simulation for children to

perform language choice of others as well as themselves, and to discuss their reasons for those choices. Another method developed is talking picture routine which asked both children and their parents to respond to Spanish greetings taped on Language Master cards carrying photographs of Chicanos and Anglos, varying on dimensions of sex, age, and relative solidarity.

The data goal of this study was to determine whether a particular bilingual program, the Bilingual Learning Environment Research Project, had effected a sociolinguistic performance change in six selected first graders in the program, as compared with older children in their families. Additionally, the sociolinguistic performances of the children were compared with those of their parents. The concern was to consider the sociolinguistic effects of this bilingual program. Also, the concern was to check the methods developed, to determine whether they would reflect reality as sensitively as ethnographic methods. Attitude measures were also given to both children and their parents to assess in another way the similarity of sociolinguistic patterns between parents and their children. Adaptations of Lambert's integrative/instrumental measures were developed for the adults, and a version of the matched guise technique was developed for the children. The methodological goal of this research was to suggest short, easily administered sociolinguistic measures of diglossia for use in development of bilingual programs.

In general, the role-simulation methodology was successful; the talking pictures failed to reflect language choice reality; and the attitude measures were inconclusive. Language choice for bilinguals is a highly complex function, and except for role simulation, these methods failed to reflect the reality of diglossic bilinguals.

Bilingual programs which ignore sociolinguistic trends of a community are often self defeating, but such trends are so complex as to evade realization except by the most time consuming methods. The parents, however, are willing to talk about the bilingualism of their children, and it seems should make decisions and policies for institutionalization of their languages.

Order No. 72-13,793, 115 pages.

BILINGUAL SOCIALIZATION OF PRESCHOOL CHINESE CHILDREN IN THE TWIN CITIES AREA

Eddie Chen-Yu Kuo, Ph.D.
University of Minnesota, 1972

Adviser: Arthur L. Johnson

This is a socio-linguistic study of the bilingual pattern and its variations among preschool Chinese children in the Twin Cities area. Both the familial and the extra-familial variables were explored regarding their relationships with the learning of the English and the Chinese languages among the sample children.

The sample of the study was composed of 47 preschool Chinese children (25 boys and 22 girls) from 44 families. The ages of the children ranged from 30 to 72 months. Their parents were foreign born and highly educated.

Both mailed questionnaire and intensive interview techniques were used in data-collection. The testing of language proficiencies in English and in Chinese was based on a modified version of the Peabody Picture Vocabulary Test (PPVT). A modified form of the Hoffman Bilingual Schedule was used as a measurement of the family bilingual background.

Analysis of the data showed that the following variables were positively related to the "bilingual ratio," which was operationalized as

$$\frac{\text{English ability} - \text{Chinese ability}}{\text{English ability} + \text{Chinese ability}}, \text{ of the child:}$$

English ability + Chinese ability

(1) General bilingual background of the family being more English-oriented, (2) Parents being naturalized U.S. citizens, (3) More American food served at home, (4) Parents' years of experience in the United States, (5) Parents believing English is more important than Chinese for their child, (6) Parents using more English in the conversation between them, (7) Parents using more English in their conversation with the child, (8) parents using more English in reading stories to the child, and (9) Age of the child. The findings supported the general belief that the family is an important socializing agent for the language learning of the preschool child, although its influence seems to decrease with the increase of the age of the child. When the age was held constant, there appeared a zero correlation between the English and the Chinese proficiencies of the child.

The bilingual children were found to use different languages in different situations with different interlocutors. A clear distinction was made between situations involving the parents and that involving the siblings and peers. More Chinese was used in the former situation, while more English in the latter. The data showed younger children tended to be more proficient in Chinese than in English. However, the difference between the proficiencies in these two languages seemed to decrease for the older age group. The progress in Chinese proficiency seemed to taper off with the age of the child, while his ability in English appeared to catch up rapidly.

The findings suggest that the degree of bilingualism is a valid indicator of the national identity of the bilingual individual and his family. Besides, it is also a reliable reflection of the degree of accommodation and assimilation of the bilingual group.

Order No. 73-10,594, 197 pages.

INNOVATIVE EDUCATION FOR LA RAZA: A SOCIO-LINGUISTIC ASSESSMENT OF A BILINGUAL EDUCATION PROGRAM IN CALIFORNIA

Andrew David Cohen, Ph.D.
Stanford University, 1973

The proliferation of bilingual education programs has prompted sociolinguists to call attention to the lack of investigations of existing language situations as part of program planning. Sociolinguists have also pointed out that there should be systematic study of the effect of bilingual schooling upon the language behavior of the children involved.

The Redwood City School District, thirty miles south of San Francisco, began a bilingual program in the fall of 1969, under the auspices of the ESEA Bilingual Education Program, Title VII. The author of this study was appointed Internal Evaluator of the program shortly after it began. The study examined a series of research issues related to bilingual education, such as the effects of bilingual schooling upon Mexican American students' native and second language learning, upon their language use patterns, upon their performance in a non-language subject matter such as mathematics, upon their academic aptitude, upon their attitudes toward the Mexican and Anglo cultures, and upon their attitudes toward school. The study also looked at the effect on parental language attitudes of having their children in a bilingual program.

The sample for the study consisted of 90 Mexican American children and the 70 sets of parents of these children. 45 Mexican Americans, as well as 23 Anglos not in this study, received bilingual schooling at the Garfield School in Redwood City, while 45 Mexican American children received conventional English-only schooling at a nearby school. The students spanned three grade levels, with roughly 15 at each grade level at each school. The students were designated by groups—Pilot, Follow Up I, and Follow Up II—so as to emphasize the number of years of schooling they received while in the Bilingual or Comparison group, rather than the grade in which they started or ended.

All three groups at the Bilingual Project received instruction in math, science, and social studies, both through their vernacular, Spanish, and through their second language, English. The techniques of bilingual instruction varied from grade level to grade level and from year to year.

The instruments in the study included both measures of performance, such as tests of listening, speaking, reading, and writing skills in Spanish and English, and a language use observation instrument, as well as self-report of language use and report by others, parental report of family language proficiency and language use patterns, and measures of language attitudes. Students were also

given tests of math and of academic aptitude, and a cross-cultural attitude inventory. The instruments were administered for the most part on a pre-post-test basis over a two-year period. The pretesting took place in the fall and winter of 1970 and the posttesting was conducted in the spring of 1972. The bulk of the testing and interviewing was conducted by a team of Mexican American undergraduates from Stanford University.

Although it was too early to assess the ultimate effects of bilingual schooling in Redwood City, the early indications were that bilingual education in this Mexican American community in California was a viable, significant innovation. Analysis of covariance revealed that Mexican American youngsters were becoming literate in both Spanish and English, that they were using their Spanish without shame and more frequently than were their peers in the Comparison group, that their performance in the academic subjects was as good as or better than that of comparison youngsters in an English-only program, and that they felt better about being Mexican American and about their school experience than comparison students. Furthermore, the successful experiences of the children had a positive effect upon their parents. The parents themselves gained greater conviction that there was an important place for the knowledge of Spanish in an increasingly multilingual society.

It was recommended that the research in Redwood City be continued so as to find answers to the various research questions at regular intervals. On the basis of the preliminary, but encouraging, results of research in Redwood City, it was recommended that bilingual programs be initiated or continued elsewhere and that systematic evaluation be conducted, hopefully drawing on the research techniques described and implemented in this study.

Order No. 73-14,880, 349 pages.

LANGUAGE ACQUISITION OF A BILINGUAL CHILD: A SOCIOLINGUISTIC PERSPECTIVE (TO AGE FIVE)

Fantini, Alvino Edward, Ph.D.
The University of Texas at Austin, 1974

Supervisor: Joseph Michel

This study is a sociolinguistic analysis of language acquisition based on the longitudinal observation of one bilingual child. Data were collected on the child's speech through diary notes and tape recordings made at regular intervals from birth to age five. Besides recording the child's speech development,

we have given particular attention to contextual information related to each speech event. The child's languages include Spanish, English, and a passive knowledge of Italian.

In a general background section, works on bilingualism, especially infant bilingualism, and current trends in sociolinguistics are reviewed. A brief description of the child and his caretakers is provided, including an examination of the child's exposure and contact to each of the languages in question. The data are then analyzed from a sociolinguistic perspective, which is the principal orientation of this study. Several aspects of bilingual acquisition are examined; e.g., the process through which the child learns to differentiate languages and the development of an awareness of his own bilinguality. Once languages are differentiated, the phenomenon of code switching and its relation to social variables is examined. The outstanding factors affecting linguistic choice appear to be interlocutor, setting, and the function and form of the speech event. An examination of the data reveals a high degree of consistency between social variables and the choice of a particular code. The effects of socialization on developing bilingualism are also considered, particularly the attitudes and behavior of the child's caretakers, who are the ones that exert the greatest influence on the child during his pre-school years. They perform an important role which affects the child in learning how to use language, which language to use in a given situation, when to speak and when not to speak, and a notion of appropriateness of speech in content and style. The child's own use of language styles are then analyzed; and it is apparent that style shifting, like code switching, is an early development. Among the styles identified, there is a style used with adults, another with peers, and another with younger children.

A linguistic profile is included which highlights significant stages in the emergence of phonology, vocabulary, and grammar, providing insights into the child's developing language ability. Interference is examined within this profile, being treated as both a synchronic and diachronic phenomenon. This approach is crucial in a developmental study since it is important to ascertain which linguistic deviations are attributable to interference and which are deviations from the standard model characteristic of child language. Interference is not a purely linguistic phenomenon, but social factors are shown to exert considerable influence on borrowing. In a final section the child's proficiency in Spanish and English at age 5;8 is assessed, and his ability in each language is compared with that of his monolingual peers. The study concludes with several general observations drawn from the data and analyses, which suggest that the child begins differentiation almost immediately upon contact with the two language systems, that this differentiation is facilitated by the separate use of each language in the environment, and that the child is capable of complete code switching as early as age 2;8. The conclusions stress the effect of social variables on language choice, the influence of the caretakers' role on the child's developing verbal

behavior, and the existence of differentiated language styles as an early development in child speech. Finally, the importance of various social factors on the occurrence, direction, and degree of linguistic interference is underscored. The conclusions on style shifting and language use have general applications since all speakers—whether bilingual or monolingual—learn to modify linguistic elements in accordance with social needs. An appendix is included which contains selected excerpts from the child's speech diary throughout the period under consideration.

Order No. 75-4362, 322 pages.

THE SOCIAL BASES OF THINKING AND SPEAKING: A STUDY OF BILINGUAL CHICANO CHILDREN

Luhman, Reid A., Ph.D.
University of Kansas, 1974

The primary concerns for questions concerning language and cognition have been in the fields of linguistics and psychology respectively. With the recent advent of bilingual education in this country, many of these concerns have come within the province of education. One discipline notably absent from this interplay is sociology which, for the most part, has touched upon these areas only at the theoretical level. Concurrently, there has been a noticeable gap in much of the research directed toward language and cognition in that little attempt has been made to relate them to the social environment from which they come. It is the purpose of this research to deal with this issue.

The focus of this study is on the logic and content of symbolic grouping in bilingual Chicano children. Symbolic grouping refers to the ability to abstract "sameness" from the environment according to a system of similarity. The logic of that grouping refers to the organization so produced. In short, this aspect of the research is a direct outcome of much of the research that has come from developmental psychology. The purpose here, is not to view the logic and content of symbolic grouping from a developmental perspective, but rather to place it in a more sociological framework.

The primary sociological aspects to this research concern the social experience that bilingual children have with the objects they group as an explanation of the logic they employ and the content of groupings they construct. This experience of the children will vary among objects due to the presence or absence of the objects in the child's everyday life and the degree of openness of the object to a child's direct action. Also, because these children are bilingual, the language with

which the child normally deals with the object was considered an important factor, focusing here on the social distribution by domain of Spanish and English within the community.

The empirical part of this research consisted of an intensive set of interviews in both Spanish and English with a sample of twenty-eight Chicano children who attended fourth grade in a bilingual school in northern New Mexico. Half of this sample lived in the town where the school was while the other half lived in rural areas surrounding the town where the dominance of Spanish was considerably stronger and the lifestyle was different. The interviews consisted of a variety of tasks and questions, the overall design intended to produce data about the logic and content of their symbolic groupings as well as to gain other pertinent information about themselves and general language use. The tasks relating to the grouping were largely picture sorting tasks, some of which contained pictures taken within their school and around the community so as to measure their groupings of the actual elements of their lives.

The primary finding of this research is that there is very little difference in the actual content of the groups the children formed but that there is a definite variation in the logic used to form those groups. This variation in logic occurred across the town and rural children and across Spanish and English. Beyond that general observation, however, it was also found that the nature of the child's direct experience with the objects he grouped had a major bearing upon the manner in which he conceptualized the logic he applied to them. Finally, it was noted through a word association task that the overall similarity of stimuli words (as measured through their common associates) was remarkably like the groupings the children formed of the objects for which those stimuli words stood. In addition, there was considerable similarity among the stimuli words across Spanish and English in which the children responded to translations of those same stimuli words. This suggests that the increasing dominance of English which is occurring in many Spanish speaking populations in this country produces compound bilingualism as the meaning systems merge across language.

Overall, the most significant finding of this research is that the logic of symbolic grouping is directly related to the social and linguistic experience that children have with the objects they group. The preference for different kinds of logic does not, however, necessarily alter the content of the groups they form; the difference in routes does not determine a difference in destination.

Order No. 75-17,636, 244 pages.

**A SOCIOLINGUISTIC CRITIQUE OF BILINGUAL EDUCATION
CURRICULA AND THE BILINGUAL EDUCATION ACT IN
TERMS OF ADEQUACY FOR THE PUERTO RICAN
COLLECTIVITY**

Nieves, Sarah, Ed.D.
Columbia University, 1975

Sponsor: Professor Gary Griffin

The study was conceived as a critique of the bilingual education curricula generated by the Bilingual Education Act, with specific reference to the Puerto Rican collectivity in the United States.

Six criteria were developed, drawing from the integration of theories of social action and language usage. The criteria were then applied to specific bilingual education programs and to the Bilingual Education Act itself.

The study took a critical science approach for the analysis of the social role ascribed to bilingual schooling within the existing social system. It explored the relationship between value orientation and communication codes. It also examined the theoretical assumptions underlying the Bilingual Education Act and its expressed rationale within the concept of compensatory education.

The study includes a review of the social and historical background of bilingual schooling in the United States and in Puerto Rico. It also advances some of the implications of presently existing bilingual programs for the educational experience of Puerto Ricans in the United States.

Areas for further research are noted in closing.

Order No. 75-18,690, 223 pages.

IV. CURRICULUM

READING AND LANGUAGE ARTS

THE EFFECT OF A PROGRAM OF CHORAL SPEAKING ON THE SILENT READING ACHIEVEMENT OF SIXTH- GRADE BILINGUAL PUERTO RICAN CHILDREN IN THE NEW YORK CITY ELEMENTARY SCHOOLS

(Order No. 64-293)

Herbert Schwartzberg, Ed.D.
New York University, 1963

Chairman: Professor Alvina T. Burrows

The purpose of this investigation was to test the effect of a program of an oral language arts technique, choral speaking, upon elementary school children's silent reading achievement.

The population of the study consisted of thirty pairs of sixth-grade, bilingual children of Puerto Rican origin or extraction in a "difficult" New York City elementary school, who were matched in pairs on the factors of sex, age, I.Q., reading achievement and school class.

One member of each matched pair was placed in the Experimental Group, the other in the Control Group. The Experimental Group children left their regular classrooms twice weekly over a period of six months for a series of 44 choral-speaking sessions of forty minutes each, conducted by the investigator. During the experimental sessions, the Control Group children remained with their regular teachers and engaged in extended social studies activities.

Both groups, the Experimental and the Control, received their usual instruction in reading; the school reading program used the Scott Foresman basal reading series and followed the activities and procedures set forth in the series guide books.

At the beginning of the study and then again at the end, both the Experimental and the Control Groups were tested on alternate forms of the Metropolitan Achievement tests, Intermediate Reading Test. Results from these testings were analyzed to determine if the Experimental Group made greater gains in silent reading achievement than did the Control Group. Comparisons were also made

between the boys and the girls in the Experimental Group with their respective matched groupings within the Control Group, and between the girls in the Experimental Group with the boys in the Experimental Group.

Consideration of the data derived from these comparisons indicate that the differences between the various groupings being compared were statistically negligible and were of such magnitude as clearly to be attributable to chance alone.

Microfilm \$2.75; Xerography \$8.80. 193 pages.

**THE EFFECT OF AN INSTRUCTIONAL TECHNIQUE
IN THE MODIFICATION OF VOCABULARY GROWTH
OF DEPRIVED BILINGUAL PUPILS
(with) DICTIONARY 4¹ and 4²**

(Order No. 65-10,388)

Nathan Edward Painter, Ed.D.
Arizona State University, 1965

Chairman: Donald E. O'Beirne

THE PROBLEM

The purpose of this study was to determine the effectiveness of a teaching technique employing a bridging vocabulary which was selected and structured to facilitate the reading vocabulary achievement of deprived bilingual children.

A further purpose of this study was to ascertain the effect of this teaching technique on reading comprehension, mechanics of English, and spelling.

The null hypothesis tested was that there is no significant difference between reading vocabulary achievement test scores achieved by deprived bilingual students instructed by a teaching technique employing a selected and structured bridging vocabulary and those achieved by deprived bilingual students not receiving this instruction. In addition to this major hypothesis, several corollary hypotheses were tested: There are no significant differences between reading comprehension, mechanics of English, and spelling test scores.

METHODS AND PROCEDURES

The population in this study was identified by use of census tract information and school records. It consisted of deprived bilingual fourth-grade children

enrolled in fourteen classes in five elementary schools in Phoenix Elementary School District Number One.

After eliminating students for whom there was incomplete data, 179 pupils were selected for the study. One hundred students were assigned randomly to the control group, and seventy-nine were assigned to the experimental group.

The materials used in this study consisted of a dictionary compiled from a list of controlled vocabulary words. Matching tests were prepared from the controlled vocabulary word list. (These tests had two parts, a word list and a list of definitions of the words in the list.)

A notebook for recording progress in developing comprehension of the word list was provided for each student.

The teacher began with Lesson number one. The controlled vocabulary word list was placed on the blackboard and copied into the notebooks by the students. The students looked the words up in the dictionaries and wrote the definitions of the words into the notebooks. The teacher and students then said the words aloud and studied their meanings. Comprehension and progress were checked by means of the matching tests. The purposes of these tests were to reinforce correct student responses, and to give the teacher a quick means of discovering and correcting misconceptions and errors. The teacher presented the matching tests in numerical order, one each four school days.

The *Otis Quick Scoring Mental Ability Test*, and the *California Achievement Test, Elementary Forms W and Y*, subtests in reading vocabulary, reading comprehension, mechanics of English, and spelling were selected for use in this study. All tests were administered by the classroom teachers. The *Otis Mental Ability Test* and *California Achievement Test, Form W*, subtests were administered initially. The experimental factor was introduced to the experimental group the first week of October, 1964, and continued five calendar months. The *California Achievement Tests, Form Y* subtests were administered the first week of March, 1965. The data obtained from these tests were punched into IBM cards and sent to the Western Data Processing Center, University of California, for statistical analysis. An analysis of a covariance was computed. This Analysis was the basis of the findings of this study.

FINDINGS

A significant difference was found between vocabulary achievement scores of the control group and the experimental group when other control variable test means were adjusted. The differences favored the experimental group. The null hypothesis that no differences exist between the experimental and control groups after the experimental period was rejected.

No significant differences were found between the experimental and control groups on reading comprehension, mechanics of English, and spelling scores. On these items, the null hypothesis cannot be rejected.

It was found that the improvement of reading vocabulary scores of the children in this study did not improve reading comprehension scores. Similarly, it was found that mechanics of English and spelling scores did not improve when reading vocabulary scores improved.

Microfilm \$3.10; Xerography \$10.80. 237 pages.

THE EFFECTS OF A PROGRAM OF SPECIAL LANGUAGE INSTRUCTION ON THE READING AND INTELLECTUAL LEVELS OF BILINGUAL CHILDREN

(Order No. 66-4455)

Kathryn Stephenson Talley, Ph.D.
The University of New Mexico, 1965

THE PROBLEM

The purpose of this study was to determine the effectiveness of intensive English language instruction on the reading achievement levels and on the mental maturity levels of a group of bilingual children.

THE HYPOTHESES

The hypotheses of the study were: (1) Intensive English language instruction, including the teaching of oral English as a second language, and guidance in reading and writing English, study of concepts and vocabulary, multiple meanings of words, idioms, and other figures of speech, would result, in a period of six months, in a gain in reading achievement for an experimental group of bilingual children. (2) In addition to the reading achievement gain demonstrated for the experimental group, it was predicted that there would be a significantly higher gain in mental maturity scores for the group above that gain realized in the area by a control group of subjects. (3) It was also predicted that the increments in mental growth and reading ability anticipated for the experimental children might be of greater measurable amplitude for the fourth-grade subjects than for those pupils on the sixth-grade level.

PROCEDURES

The study was divided into the following parts: (1) review of the pertinent literature; (2) selection of the subjects; (3) pretesting with two teacher-constructed tests of idioms and two teacher-constructed tests of multiple meanings, and with the California Test of Mental Maturity and the California Reading Achievement Test Form W; (4) presentation of the Enriched Language Arts program utilized for the study; (5) post-testing with the idioms and multiple meanings tests, the California Test of Mental Maturity and the California Reading Achievement Test Form Y; and (6) presentation, analysis, and interpretation of the data. Of an initial population consisting of two hundred ten students; one hundred twenty-three fourth and sixth-grade children from four elementary schools were used in this study. The experimental group consisted of sixty children and the control group was made up of sixty-three children.

FINDINGS

Hypotheses one and two were accepted and hypothesis three was rejected. The experimental group made a statistically significant gain in reading achievement and in mental maturity over those gains made by the control group. Contrary to expectations, the sixth-grade experimental group made greater gains in reading achievement and mental maturity than did the fourth-grade experimental group.

RECOMMENDATIONS

The present policy of presenting a standard language arts program to both bilingual and monolingual pupils in the Albuquerque, New Mexico Public School System be changed.

An enriched language arts program, featuring intensive English language instruction, including the teaching of oral English as a second language, and study of idiomatic English expressions and the multiple meanings of words, be implemented in the school system for all children who hear and/or speak a language in their home situations which is not the one in which they are required to function at school.

Administrators become cognizant of and admit the problem they face in educating bilingual children and that they make energetic efforts to initiate system-wide changes directed toward providing a more realistic education for children who function in two languages.

Microfilm \$3.00; Xerography \$9.70. 215 pages.

AN ANALYSIS OF THE COMPOSITIONS OF BILINGUAL CHILDREN IN THE FIFTH GRADE

(Order No. 67-4978)

Benton Ng, Ed.D.

University of California, Berkeley, 1966

Bilingualism is a significant environmental factor in the acquisition of language. In adulthood the ability to use a second language is a decided cultural advantage. Whether learning two languages in the child's early years is more of an asset than a liability in ultimate language development is a question that has long been discussed.

The purpose of this investigation was to analyze compositions written by fifth grade bilingual children of Chinese ancestry in order to determine the relationship between the degree of their bilingual background with the structural patterns appearing in their written language. The questions this research was designed to answer were the following: 1. To what extent is the background of these fifth grade children bilingual? 2. What patterns of structure appear in the written language used by children who are highly bilingual as compared to children who are bilingual to a lesser degree? 3. What patterns of subordination can be isolated and described through syntactic linguistic analysis? 4. Are expressions and grammatical forms of one language (Chinese) introduced into another (English)?

The subjects who took part in the study were 356 fifth grade children from three San Francisco, California public schools. They were average intelligence and slightly less than average socio-economic background. The criterion test used to determine the degree of bilingualism to which an individual was exposed was the Hoffman Bilingual Schedule. Reference to upper and lower groups denotes the upper and lower 25 percent of the total distribution based upon scores obtained from this test. In addition to the bilingual test, other experimental material for this study consisted of three samples of written language (in English) from each experimental subject.

Through an analysis of the compositions, the following findings were derived: 1. Sentence length used as a measure of maturity revealed that, on the average, the highly bilingual subjects wrote shorter sentences than the low group. 2. Subjects of both groups employed run-on units. The high group, however, had a higher rate of incidence. 3. Differences in vocabulary used, as indicated by the type-token ratio measurement, revealed significant differences in favor of the low group. That is, the low group showed a greater diversity in vocabulary. 4. While most subjects used a large number of patterns and combinations of

patterns and combinations of patterns of structure, some basic patterns appeared with great frequency, while other patterns and combinations appeared with lesser frequency. 5. Members of the low group showed a greater tendency to use the uncommon patterns than did the high group. 6. Patterns composed of immovable elements ranked highest in frequency. 7. Both high and low groups made some use of movables; the movables of place and time appeared with greatest frequency. 8. Boys in the high group are more limited in their repertoire of syntax than girls in the same group. On the other hand, girls and boys in the low group were about equal in this regard. 9. Evidence of carry over of one language (Chinese) into another (English) can be identified and described: a) Most frequent usage was of the unusual word order reflective of the Chinese language. b) Grammatical forms, especially inflection of verbs, were second in frequency. c) Literal translation of Chinese into English was quite extensive. 10. Problems with verb proved to be the most frequent kind of deviation from conventional usage. 11. Substitution of the present tense for the past proved to be the major difficulty in the use of verbs. This was twelve times as troublesome for the high group as for the low. 12. Subjects who were rated low on the bilingual schedule were also those who manifested the most sensitivity to the conventions of language.

Microfilm \$3.00; Xerography \$6.60. 136 pages.

AN INVESTIGATION OF THE RELATIVE EFFECT OF THE STUDY OF SYNTAX AND PARAGRAPH STRUCTURE ON READING COMPREHENSION OF MONOLINGUAL AND BILINGUAL PUPILS IN GRADE SEVEN

(Order No. 66-12,678)

Estella E. Reed, Ed.D.
Indiana University, 1966

Chairman: Leo Fay

This investigation was undertaken to determine the relative effect of the study of syntax and paragraph structure on reading comprehension of monolingual and bilingual pupils in grade 7.

The null hypothesis stated that there is no significant difference in achievement in reading comprehension between a group characterized by a program of reading instruction based on (1) recognition of sentence elements, and (2)

recognition of paragraph structure and a group characterized by incidental reading instruction in a regular English class.

The experimental group had a series of 30 reading lessons prorated in regular English classes for 15 weeks. The control group had no definite program of reading instruction.

Study sheets, devised by the researcher, stressed syntactical units in sentences and/or paragraph structure as an aid to literal comprehension. Local places, people and events were used in the content of the lessons, as well as material from textbooks. Extended practice in reading was given through library guidance and *Gates-Peardon Practice Exercises in Reading*.

The 167 pupils in eight intact classes in Track II English curriculum in Washington High School, East Chicago, Indiana, were the subjects. Each of four teachers had two classes which were randomly assigned to experimental or control classification. The experimental group had 84 pupils; the control group had 83 pupils.

The "Paragraph Comprehension" subtest of *The Nelson Reading Test*, Grades 3-9, was used to measure the achievement of the subjects. Form A was administered in February; Form B was given in May.

Single classification analysis of variance established homogeneity of groups at the onset of the study. The data from the Paragraph Comprehension section of *The Nelson Reading Test*, Forms A and B, were analyzed, using single classification analysis of variance and gain scores.

The following is a summary of the findings:

1. The experimental group was significantly superior to the control group in gain score on the Paragraph Comprehension Test at the .01 level.
 2. A significant difference at the .05 level existed between the boys of the experimental group and the boys of the control group; the difference favored the experimental boys.
 3. A significant difference at the .01 level existed between the girls of the experimental group and the girls of the control group; the difference favored the experimental girls.
 4. There was no significant difference between monolingual pupils in the experimental group and the monolingual pupils in the control group.
 5. A significant difference at the .01 level, favoring the experimental group, existed between bilingual pupils in the experimental group and bilingual pupils in the control group.
 6. When the experimental group was considered alone, the bilingual pupils were superior to the monolingual pupils at the .01 level, in gain score in reading comprehension.
 7. When the experimental group was considered alone, there was no significant difference between boys and girls in gain score in reading comprehension.
- The superiority of the experimental pupils suggests that this program has merit

in helping both bilingual and monolingual pupils in grade 7 to gain literal comprehension of a sentence or paragraph.

Since there was no significant difference between monolingual pupils in the experimental and control groups, and since there was a highly significant difference between bilingual pupils in the experimental and control groups, the greatest value of this study may lie in a contribution to the methodology for teaching bilingual pupils in junior high school.

Microfilm \$3.00; Xerography \$6.80. 144 pages.

A STUDY OF TWO APPROACHES TO THE TEACHING OF SPELLING IN THE SEVENTH GRADE OF A BICULTURAL SCHOOL SYSTEM

(Order No. 69-13.222)

James F. Klemm, Ed.D.
North Texas State University, 1969

The problem of this study is to determine the relative effectiveness of the conventional teacher-directed group-approach to the teaching of spelling when compared to a student-centered self-directed individualized-approach for students at the seventh-grade level of a school with a large number of Spanish-speaking students. A way to isolate the source of differences is achieved by an investigation of the following variables: (1) language spoken in the home environment, (2) sex of the students, (3) maturity as measured by age in months, (4) placement of students into homogeneous classroom groups of high, average, and low ability, (5) intelligence of students, (6) the relationship or ratio of Language I.Q. to Non-Language I.Q. among students, (7) previous experience with an S.R.A. Spelling Laboratory, and (8) prior experience with an S.R.A. Reading Laboratory.

Two forms of *Coordinated Scales of Attainment: Spelling* were utilized to measure spelling achievement gains. Values for Language I.Q., Non-Language I.Q., and Total I.Q. were obtained through the administration of the *California Short-Form Test of Mental Maturity*. Information in regard to language spoken in the home, class section, sex, date of birth, previous experience with S.R.A. spelling materials, and prior experience with S.R.A. reading materials was determined through reference to the student personnel records of the school.

The detailed development of the problem is the primary concern of chapter

One. Chapter Two is devoted to a discussion of those studies which are relevant to the present study and to quotations from authorities in the field of spelling which have relevance to this study. Chapter Three is concerned with the methods and procedures for the collection and treatment of the data utilized in this study. Derivation of the statistics in the study is treated in chapter Four. Chapter Five consists of a summary of the procedures of the study together with conclusions, educational implications, and recommendations which are pertinent to the information derived from the study.

The following conclusions appear to be justified: (1) students in a conventional classroom spelling program make significantly greater gains in spelling achievement than students taught spelling through the use of an S.R.A. *Spelling Laboratory*; (2) language spoken in the home environment does not have a significant influence; (3) sex of the students is immaterial; (4) maturity as measured by age in months has no apparent effect; (5) placement of students into homogeneous classroom groups of high, average and low ability has no consistent effect; (6) students of low ability make significantly greater gains when taught by the conventional classroom approach; (7) students of below-average intelligence make consistently greater gains when taught through the use of the conventional approach; (8) students of average and above-average intelligence are not significantly affected by the approach to the teaching of spelling utilized in the classroom; (9) differences in the relationship of Language I.Q. to Non-Language I.Q. are not of great importance in their effect; (10) prior experience with an S.R.A. *Spelling Laboratory* is not a factor of significance; (11) skills developed through the use of S.R.A. *Reading Laboratory* materials do not have a significant effect; and (12) the factors which may cause the significant differences in gains in spelling achievement between the two approaches used in the study are correct pronunciation of spelling vocabulary words and a knowledge of their meanings.

M \$3.90; X \$13.75. 301 pages.

A COMPARISON OF FOUR METHODS OF TEACHING WORD RECOGNITION TO BICULTURAL, BILINGUAL ADULTS

George Andrew Keating, Ed.D.
University of Northern Colorado, 1972

PURPOSE OF THE STUDY

The purpose of this study was to compare four methods of teaching word recognition to bilingual, bicultural adults with limited reading skills. Method

one stressed the visual aspects of the words to be taught. Method two stressed the auditory aspects of the new vocabulary. Method three stressed the kinesthetic aspects of the unknown vocabulary. Method four emphasized a combination of the visual, auditory, and kinesthetic aspects of the words taught to each subject.

PROCEDURES

A sample of bilingual, bicultural adults were randomly assigned to either a visual, auditory, kinesthetic, or combination treatment group. All participants could speak English and comprehend spoken Spanish. This linguistic combination, coupled with a reading proficiency of eighth grade or below and an intelligence quotient of eighty or above describes the population utilized in this study.

Each subject met with the researcher for three interview periods. Initially, the subjects' Spanish language abilities were investigated and ten individually unknown words were discovered by having each subject read from a key word list developed from the Dale-Chall list of common words. During the second session each subject was taught ten previously unknown words using either the visual, auditory, kinesthetic, or combination procedures as developed by Mills in the *General Learning Test*. The researcher followed Mills' instructional directions during each teaching session. At the conclusion of the fifteen-minute teaching session, each subject was tested to discover how many of the previously unknown words he had learned. The number of words successfully named was designated as the immediate recall score. In the third interview the subject was asked to name the words learned twenty-four hours previously. The number of words successfully named in this interview became the delayed recall score.

ANALYSIS OF DATA

The mean scores for the immediate and delayed recall test were analyzed with a one-factor analysis of variance. The .05 level of confidence was employed to determine the significance of the F value. This research further investigated the relationship of inmate intelligence and performance on the immediate and delayed recall tests and the relationship of inmate reading level and performance on immediate and delayed recall tests.

CONCLUSIONS

Final statistical analysis and the confines of the research situation warrant the following conclusions: 1. There were no significant differences in the mean score results of the visual, auditory, kinesthetic, or combination treatment for the immediate recall data with a sample of bicultural, bilingual inmates tested at the Colorado State Penitentiary. 2. There were no significant differences in

the mean score results of the visual, auditory, kinesthetic, or combination treatments for the delayed recall data with a sample of bicultural, bilingual inmates tested at the Colorado State Penitentiary. 3. While final, immediate, and delayed recall scores were both high and generally unvaried, the results of the kinesthetic treatments produced the highest variance in both testing situations. However, no significant differences resulted between treatment means.

As a related procedure to the central question of method effectiveness, correlation coefficients were calculated for the following relationships: (1) subject intelligence and performance on an immediate recall test, (2) subject intelligence and performance on a delayed recall test, (3) subject reading level and performance on an immediate recall test, (4) subject reading level and performance on a delayed recall test. The magnitude of these correlations indicated that 5 per cent or less of total variance was held in common by any two variables.

Order No. 73-283, 101 pages.

A PSYCHOLINGUISTIC DESCRIPTION OF MISCUES GENERATED BY SELECTED BILINGUAL SUBJECTS DURING THE ORAL READING OF INSTRUCTIONAL READING MATERIAL AS PRESENTED IN POLISH READERS AND IN ENGLISH BASAL READERS

Jane A. Romatowski, Ed.D.
Wayne State University, 1972

Adviser: Helen T. Suchara

This study was designed to examine and describe the oral reading performances of three bilingual subjects. Each subject read one English story and one Polish story in its entirety and without interruption. The post-reading tasks consisted of retelling the story in the subject's own words. The investigative tool used in analyzing the miscues was *The Goodman Taxonomy of Reading Miscues*. Prepared guidelines for each story outlining characters, character development, plot, theme, events, subtleties, and setting were used to examine the retellings.

The subjects in this study represented a variety of backgrounds, including: length of residency in the United States (1 1/4 to 3 years); the number of years of school attendance in Poland (0 to 4 years); and attendance in Polish language classes outside of regular school attendance in the United States (two attended; one did not). All subjects were similar in several respects. In grade placement,

all were fifth graders. Polish was the home language but English was the medium of instruction in school for all subjects. All subjects read the same sixth-grade level story in English and the same fifth-grade level story in Polish.

The purposes of the research were to examine and describe the miscues generated by the subjects in both stories from a quantitative and qualitative point of view. Particular attention was given to miscues that represented the influence of the other language phonologically, syntactically, and semantically. Miscues were analyzed for their relationship to comprehension and to comprehending behavior. Further, the research also intended to add supportive data from a bilingual perspective to the growing body of research in miscue analysis.

This study was based on a psycholinguistic view of the reading process in which thought and language interact. The reader deals with the encoded message of the writer by bringing to bear on the task the three systems of language, graphophonic, syntactic and semantic. Using these systems he samples, anticipates, predicts and confirms his hypotheses about the structures, and the meaning he expects to find in the graphic array before him.

Among the conclusions in this study, were the following:

1. *The Goodman Taxonomy of Reading Miscues* was effective in dealing with the miscues generated during the reading of the Polish story. Only slight modification was necessary to accommodate a linguistic feature of Polish or to account for a type of miscue resulting from the subject's bilingual background.
2. Other-language influence was most pronounced in the reading of the English story. Phonemic level involvement was more typical of the subject who was the newest arrival to the United States. However, the syntactic influence of Polish was evident in the readings of the English story by all the subjects as well as in their retellings. Deletions of determiners when reading and speaking and deviations from English word order in the retelling were occasionally noted.
3. Subjects tended to leave uncorrected those miscues which were syntactically and semantically acceptable. This occurred more frequently in the reading of the English story.
4. In each story subjects tended to correct those miscues which were either totally unacceptable or only partially acceptable syntactically and semantically. Such corrections indicated good use of syntactic and semantic cueing systems.
5. Predictability was a factor in dealing with the syntactic and semantic organization of sentences. The Polish story with its occasional use of unfamiliar, regionally-oriented words, and its occasional use of regional speech with irregular inflectional endings, provided a less predictable reading environment than the English story.
6. The subjects whose residency in the United States had been the longest tended to omit and insert words more often than the subject with the shortest length of residency. Redundant items were most often involved in the omissions

while insertions tended to change constructions, making them more akin to natural speech. Such selective use of omissions and insertions indicated flexibility in dealing with the English language.

7. The prepared guidelines for each story were useful instruments in analyzing the typescripts of the retellings. Such analysis led to a retelling score for each subject and each story and served as an indicator of comprehension.

8. The quantity of miscues generated was not related to comprehension. The subject generating the largest amount of miscues in the reading of the Polish story had the highest retelling score. By contrast, the subject generating the least amount of miscues had the lowest retelling score.

9. The inflectional suffix was the most involved bound morpheme in Polish and English. However, such miscues were rarely critical to deriving meaning from the stories.

10. There was very little activity at the phrase and clause levels for the Polish story. This was indicative of conservative processing of the text. The phrase level involvement for the English story consisted of phrase substitutions and phrase omissions.

The conclusions drawn have implications for teachers of reading, teacher educators, and teachers in content areas where reading is an integral part of learning. Further, they indicate the need for authors and publishers who prepare instructional reading materials, and for testers who design reading tests to reassess the theoretical bases reflected in their materials.

Order No. 73-12,586, 201 pages.

ENGLISH READING AND THE MEXICAN-AMERICAN CHILD IN A SECOND GRADE BILINGUAL PROGRAM

Chapa, Ricardo Romeo, Ph.D.
Michigan State University, 1975

The purpose of this study was to investigate English reading achievement of Mexican-American children who have been in a bilingual program, Kindergarten through second grade, and study the possibility of hinderance in the normal progress expected. As children in the bilingual program spent approximately 25% of the regular school day learning how to read and write Spanish before initiating their English basal reading program or using Spanish as a medium of instruction it was felt essential that such investigation be undertaken.

A secondary purpose added to the study, entailed the investigation of the

self-concept of children in the bilingual program to determine the overall effects of bilingual instruction on this factor of child development, although the program does not provide for specific emphasis in any form of instructional format to enhance self-concept.

A comparable control group of Mexican-American children who had never been exposed to bilingual education was randomly selected in order to undertake the study. Both groups were administered the Comprehensive Test of Basic Skills to investigate English reading achievement, the Inter-American Series Spanish Test and the Self Appraisal Inventory.

Although the data were not significant in English reading achievement, the children in the bilingual program scored higher in vocabulary, comprehension, and combined score than the traditional group. This investigator concluded that Mexican-American children in the bilingual program were not hindered in English reading achievement over the 3 year period analyzed. Furthermore, results point to the possibility that children in the bilingual program may exceed the progress attained by the non-bilingual group in English reading achievement.

In Spanish reading achievement, significant difference was found between the two groups favoring the bilingual group. The results showed that Mexican-American children in the traditional program who had no formal Spanish reading instruction, scored considerably lower than the children in the treatment group, consequently, it was concluded that the children in the bilingual program attained successful proficiency in Spanish reading while maintaining a high degree of success in English reading. It was concluded that the transitional bilingual program provided its participating pupils with the versatility of proficiency in reading in two languages, while not hindering their English reading progress.

No difference in self-concept was found between the two groups. As the school and home environment of both groups is very similar and neither group was subjected to any instructional practice to enhance self-concept, the investigator concluded that the evidence pointed to no significant differences between the two groups.

Order No. 76-5532, 120 pages.

READING AND RECALL AMONG BILINGUAL AND DIALECT SPEAKING CHILDREN

Fiege-Kollmann, Laila Maria, Ph.D.
University of California, Irvine, 1975

Chairman: Professor Mary Ritchie Key

The study compares the oral reading performance of Black English (BE) and bilingual Mexican American (MA) children. Standard English speaking (SE) children are used as reference. The children were average third grade readers.

The rationale for the research program was developed in terms of reading process models which bring the translation processes into a central position at the comprehension level of reading. It was hypothesized that there would be both qualitative and quantitative differences in reading error performance and in recall among the three groups. It was reasoned that the BE and MA children lack the language knowledge of SE which would allow them to predict what structure or lexical element should occur in the text. Furthermore, the BE and MA children need to rely on decoding skills, rather than on interpretative skills, as the SE reader can do. The research program also provides an empirical evaluation of the assumption that BE and MA children have similar difficulties in reading SE text.

The reading performance was evaluated by a system-oriented analysis of reading errors, of recall, and of reading speed.

For the reading error analysis, the errors were tallied into nine error categories: Base, Morphological, and Pronunciation Substitutions, Omissions, Additions, Reversals, Corrections, Repetitions, and Intonation Errors. For the quantitative analysis, the long-term value of the number of errors per hundred words of text was calculated and statistical distributions per error category were plotted. An analysis of variance based on the absolute values of errors within an error category was also calculated. The qualitative evaluation was based on linguistic analysis of the text and the readers' responses.

For the recall measure, the text was quantized into Information Units, each unit being equivalent to one propositional base present in the text. The children's recall was also analyzed and matched with the Information Units found in the text. The percent recall was calculated from the ratio between the Information Units gathered from recall and the Information Units present in the text. The statistical distributions of percent recall for each group were graphed. An analysis of variance based on the absolute recall values was also carried out.

For measuring reading speed, the long-term number of words read in a minute was calculated for each reader. Statistical distributions were graphed for each group.

The results show, that in general, the BE group behaves similarly to the SE group in all error categories, except in morphological and pronunciation substitutions where dialect involvement can be noted. It is concluded that the BE reader is able to predict and interpret as well as the SE reader, and that his recall is equally good, and sometimes better, than that of the SE reader.

The MA readers made more substitutions of all types. It was concluded that the substitutions result from uncertainty in how to pronounce English vowels and consonants and from Spanish influence. The MA reader who knows the English grapheme-phoneme rules reads as well as the SE reader.

Although there were no significant differences among groups in regard to other error categories, there was a tendency for the MA group to add, correct, repeat, and reverse less than the SE or the BE group does. This is interpreted as proof that the MA readers rely on decoding skills, rather than on predictive and interpretive skills when reading. The best reading performers came from the MA group, whereas the best recallers came from the BE group.

Order No. 76-13,873, 237 pages.

INSTRUCTION BY TUTORING OF THIRD GRADE, BILINGUAL, INNER-CITY CHILDREN IN MEANING VOCABULARY

Larson, Anna Marie Gustafson, Ph.D.
University of Illinois at Urbana-Champaign, 1975

The purpose of this study was to explore the relative value of individual tutoring, small group tutoring, presenting words in isolation, or in contextual phrases with metropolitan, inner city, third grade Mexican-American subjects. Three additional questions were considered: a) Does absenteeism affect gains in reading achievement? b) Is there a positive relationship between verbal intelligence and reading achievement? c) Will fifteen minutes daily attention to learning words and meanings result in attitude changes toward reading and self?

A pretest-treatment-post-test design was used with two experimental groups and one contrast group for ten weeks. The 78 subjects were randomly assigned among groups. All subjects received regular classroom reading instruction, but the contrast group was instructed in Mathematics facts during the time that experimental groups received individual or small group tutoring of isolated words or words in context. Tutors were trained for three weeks prior to the initiation of the program and were rotated among treatment groups during the program.

The *Gates-MacGinitie Reading Test, Primary B, Form 1* was used for both the pretest and post-test assessment of reading achievement. The *Peabody Picture Vocabulary Test, Form A* measured verbal intelligence. A pretest and post-test informal oral reading test ascertained the number of oral reading errors. Weekly records of words taught and learned were kept for immediate and delayed recall. A *Criterion Test* of words most frequently taught during the program was administered the final day. Observations, absences, and anecdotes were recorded.

Differences between treatment groups and between experimental and contrast groups were tested for significance using the one factor analysis of covariance

with the pretest score as the covariate. Relationships between reading achievement, verbal intelligence, and absenteeism were tested with the Pearson product-moment correlation coefficient.

No significant differences were found between individually and group tutored subjects or between isolated word or context presentation when reading achievement was measured by vocabulary, comprehension alone, and combined vocabulary and comprehension. No significant difference was found between each of the experimental groups and the contrast (no word instruction) group. All experimental subjects demonstrated a significant ($p > .05$) difference between pretest and post-test vocabulary scores. They made significantly fewer ($p > .001$) oral reading errors on the informal oral reading post-test than on the pretest and the majority of the experimental subjects earned a perfect score on the *Criterion Test* of words taught. A significant ($p > .001$) correlation between the *Peabody Picture Vocabulary Test* and the *Gates-MacGinitie Reading Test* was obtained. Absences appeared to have a negative relationship to comprehension ($p > .05$) and word knowledge ($p > .05$) as measured by the *Criterion Test*. Attitude changes were evidenced by improved reading behavior in the classroom, increased communication with tutors, and behavior reflecting improved self-confidence.

These findings suggest no best organization for instruction and that words presented in contextual phrases are not learned better than those presented in isolation. However, the results indicate that verbal intelligence of Mexican-American subjects (in this study) is related to reading achievement and that absenteeism affects school reading achievement. Personal attention and the opportunity to converse about words with a young adult apparently results in improved self-concept and better attitudes toward reading.

Order No. 75-14,132, 178 pages.

A PSYCHOLINGUISTIC STUDY OF READING MISCUES OF YIDDISH-ENGLISH BILINGUAL CHILDREN

Hodes, Phyllis, Ed.D.
Wayne State University, 1976

Major Professor: Samuel B. Stone

In this dissertation Goodman's psycholinguistic theory of the reading process is studied through the oral reading miscues generated by six children who are bilingual in Yiddish and English. The children, aged 7-8, have Yiddish as their dominant language and English as their second language. Taped sessions are conducted with each child. He is presented with unfamiliar narratives at a challenging

level, one in each language, which he reads aloud spontaneously. Immediately after each reading, the subject retells the story and is questioned (using *Reading Miscue Inventory* guidelines) for his comprehension. Analysis begins by replaying each tape and cataloguing miscues in English using the *RMI*; an analogous cataloguing is done for the Yiddish reading miscues using a transliteration of the language which is comprehensible to English readers. Computer correlations of miscue and comprehension scoring permit conclusions to be drawn regarding language interference, overlap and relationships of graphic, phonic, syntactic and semantic cues for individual performances. Synoptic analyses along similar lines are done for the entire group of children.

This study shows how the reading miscues and the process reflect bilingual training: it determines the relationship of miscues to reading comprehension; it adds new data to bilingual reading research; it demonstrates the *R.M.I.*'s effectiveness to analyze the reading process of children who use a foreign alphabet. These conclusions are expected to have practical value in the classroom where bilingual children are learning to read.

Order No. 76-26,141, 254 pages.

CONTENT FIELDS

AN ANALYSIS OF THE EFFECTIVENESS OF A BILINGUAL PROGRAM IN THE TEACHING OF MATHEMATICS IN THE PRIMARY GRADES

(Order No. 68-10,893)

Bertha Alicia Gamez Treviño, Ph.D.
The University of Texas at Austin, 1968

Supervisor: Raloh W. Cain

This study was an analysis of the difference in achievement levels in arithmetic fundamentals and arithmetic reasoning of primary grade children in Nye Elementary School, Webb County, Texas, under a bilingual (English-Spanish) program of instruction as compared to a similar program of instruction conducted exclusively in English. Scores on California Achievement Tests were used in the comparisons.

The first and third grade classes for the 1966-67 school term constituted the

bilingual program group and were designated as Group B. The first and third grade classes for the 1963-64 school term were selected as the comparison group and were designated as Group A. Both groups were divided into English-speaking and Spanish-speaking subgroups.

The following hypotheses were tested separately for the English-speaking and Spanish-speaking subgroups, by grade level:

1. There is no significant difference between the achievement mean in arithmetic fundamentals of children taught in English and the achievement mean of a similar group taught bilingually.

2. There is no significant difference between the achievement mean in arithmetic reasoning of children taught in English and the achievement mean of a similar group taught bilingually.

The following hypotheses were also tested by grade level:

3. There is no significant difference between the achievement mean in arithmetic fundamentals of English-speaking and Spanish-speaking children taught bilingually.

4. There is no significant difference between the achievement mean in arithmetic reasoning of English-speaking and Spanish-speaking children taught bilingually.

Data analysis was performed on a CDC 6600 computer using a one-way classification analysis of variance program. For hypotheses 1 and 2, one analysis was performed utilizing data from total samples, which included all children enrolled in the given grade levels during the designated school terms who met such basic criteria as data availability and minimum attendance. Another analysis was performed using data from restricted samples, which included children in the total sample who met the following additional criteria:

- (1) For first grade, non-repeaters and non-transfers.

- (2) For third grade, non-repeaters (except for one repetition of grade one), and all school enrollment at Nye Elementary School.

For hypotheses 3 and 4, data from the restricted sample for the third grade children of Group B were utilized, including data gathered during their first year in the bilingual program.

A frequency table of grade placement in arithmetic fundamentals and arithmetic reasoning for English-speaking children and Spanish-speaking children during each of their three years in the bilingual program was also prepared, using data on the Group B third grade children.

Conclusions from the study include the following:

For English-speaking children, (1) first graders taught bilingually did significantly better in arithmetic fundamentals, but not in arithmetic reasoning, than did first graders taught exclusively in English; (2) third graders taught bilingually did significantly better in arithmetic reasoning, but not in arithmetic fundamentals, than did third graders taught exclusively in English.

For Spanish-speaking children, (1) first graders taught bilingually did significantly better in arithmetic fundamentals, but not in arithmetic reasoning, than did first graders taught exclusively in English; (2) third graders taught bilingually did significantly better in arithmetic reasoning (for the total sample but not for the restricted sample), but not in arithmetic fundamentals, than did third graders taught exclusively in English.

No significant differences were noted between the achievement of the English-speaking and Spanish-speaking subgroups of the restricted Group B, though the mean of the English-speaking group was higher in all cases. Analysis of the frequency table showed that the Spanish-speaking children were generally below grade level in arithmetic fundamentals and arithmetic reasoning at the end of the first year in the bilingual program, but were above grade level by the end of the third year.

Microfilm \$3.00; Xerography \$6.20. 126 pages.

THE EFFECT OF BILINGUAL INSTRUCTION ON THE ACHIEVEMENT OF ELEMENTARY PUPILS

José Olesini, Ph.D.

East Texas State University, 1971

Chairman: Dr. L. D. Briggs

PURPOSE OF THE STUDY

The purpose of this study was to evaluate the achievements of two composite groups of bilingual students in the subject areas of: vocabulary, reading, spelling, language, arithmetic computation and arithmetic concepts to determine if bilingual instruction had made a significant difference in the academic achievements of these children. The groups were composed of children whose parents were urban and rural dwellers along with some migrant workers.

PROCEDURE

Sixty third grade Mexican-American children were selected at random. Thirty of these were from class sections that had been instructed with bilingual methods at least two years. The other thirty were from class sections that had received no bilingual instruction. A comparison of the chronological ages and the scores on the Otis Quick Scoring Mental Ability Test of the control and

experimental group revealed no significant difference. The scores of the Metropolitan Achievement Test, Battery A administered in October were compared with the alternate form administered in April. The results were treated statistically with the use of an IBM computer.

The experimental situation was designed to test the following hypotheses:

Hypothesis 1. There will be no significant difference in the vocabulary achievement between students taught by bilingual methods and those taught by traditional methods.

Hypothesis 2. There will be no significant difference in the reading achievement between students taught by bilingual methods and those taught by traditional methods.

Hypothesis 3. There will be no significant difference in the spelling achievement between students taught by bilingual methods and those taught by traditional methods.

Hypothesis 4. There will be no significant difference in the language achievement between students taught by bilingual methods and those taught by traditional methods.

Hypothesis 5. There will be no significant difference in the arithmetic computation achievement between students taught by bilingual methods and those taught by traditional methods.

Hypothesis 6. There will be no significant difference in the arithmetic concepts achievement between students taught by bilingual methods and those taught by traditional methods.

Hypothesis 7. There will be no significant difference in composite achievement between students taught by bilingual methods and those taught by traditional methods.

FINDINGS

In the academic areas of spelling and arithmetic computation there was no significant difference in the achievements between the control and experimental groups. In the academic areas of vocabulary, reading, language and arithmetic concepts there was a significant difference between the achievement of the control and experimental groups. There also was a significant difference between the mean grade placements of the control and experimental groups.

CONCLUSIONS

The results of this study indicated that bilingual children of both sexes achieved greater gains in the academic curricula when they were instructed with bilingual methods. Bilingual instruction reduced the language handicap that bilingual children encounter at school. These children more nearly achieved

their potential and, in doing so, not only will contribute to their personal development, but also to the society in which they live.

Order No. 72-10,824, 80 pages.

EFFECTS OF FIRST LANGUAGE INSTRUCTION IN ACADEMIC AND PSYCHOLOGICAL DEVELOPMENT OF BILINGUAL CHILDREN

Rafaela del Carmen Elizondo de Weffer, Ph.D.
Illinois Institute of Technology, 1972

Adviser: Dr. Irving J. Millstein

The Bilingual Education Act, signed in January 1968, directs American schools to a new bold course of action towards bilingual bicultural education. This was the response of the American educational system to the challenge of the educational needs of the Spanish-speaking children in the Nation. Their special educational needs require explicit cognizance of their bilinguality, and different socio-cultural values. The present monolingual educational system has not fulfilled their educational needs. One indicator of this is the national high percentage of school dropouts among the Spanish-speaking populations.

The purpose of this study was to assess the impact of bilingual education on the academic performance of first graders of Spanish-speaking background, and to explore empathy in teachers and teacher aides as a dimension in the bilingual program.

Selected for study were eleven school districts involved in bilingual programs in cities throughout the State of Illinois. Three of these eleven school districts had generally greater concentrations of Spanish-speaking children. These three consequently yielded experimental and comparison groups. The other eight school districts had only experimental groups.

The bilingual program consisted in teaching Spanish-speaking children subject matter in Spanish. The subjects taught in the first grade were: mathematics, and language arts in both English and Spanish. This teaching took place daily for two and a half hours. Teachers in the program were bilingual and bicultural. The remainder of the day the children were in the regular classes with English-speaking or Anglo children and monolingual (English) teachers.

The Spanish-speaking children in the comparison group received all instruction through the medium of English language. The teachers were monolingual (English).

Spanish-speaking children in the eleven districts were given the Test of Basic Experience (TOBE) in mathematics and language in a pre-post test sequence. The children were tested with an innovative method "bilingual testing" where English and Spanish were alternated in every other item. This procedure had the potential of providing a positive experience of success to all children who are dominant in either language.

The data of the experimental-comparison groups was subjected to analysis of covariance. The differences between the two groups in Spanish language and Spanish mathematics were significant at the .05 level in support of the experimental group. The achievement in English language and English mathematics were the same for both groups.

The results of empathy in teachers and teacher aides showed a significant difference between the two groups. A difference in empathy between teachers of different ethnic background was observed.

The results obtained from the data underline the positive impact of bilingual education in Spanish-speaking children. The children in the bilingual program achieved in English language and English mathematics at the same rate as children in the comparison group. The results highlighted the significantly higher achievement that children had in Spanish mathematics and Spanish language while the bilingual counterparts in the comparison group lost fluency in Spanish.

Order No. 73-12,204, 88 pages.

MIXED DOMINANT GROUPING AND BILINGUAL MATERIALS IN MATHEMATICS AND SCIENCE CLASSES IN TWO PUERTO RICAN JUNIOR HIGH SCHOOLS

Gordon, Jeffry Stuart, Ph.D.

University of Illinois at Urbana-Champaign, 1976

PURPOSES

The purpose of this study was to investigate the effects of different pairings of students by language dominance on achievement in mathematics. The investigator also sought to ascertain the effects of self-paced materials written in English, Spanish, and bilingually with these same students.

PROCEDURES

Participating in the study were two schools in a bilingual program in Bayamon, Puerto Rico. Each school was comprised of approximately 50% native Puerto Rican students and 50% "returnee" students who had lived a major portion of their lives in the continental United States and had moved permanently to Puerto Rico. Most of the students were bilingual, however in oral and written communication, the returnees exhibited a strong preference for English whereas the native Puerto Ricans exhibited a decided preference for Spanish. Three methods to ascertain an individual student's language dominance were employed in this study: 1. An English Idiom Test. 2. English and Spanish Reading Comprehension Tests. 3. Oral conversations between students and their English and Spanish teachers.

The students were paired with either a member of their own dominance group or a member of the other dominance group where dominance was determined using the following criteria: Evaluation by English and Spanish teachers, English Idiom Test score, Reading Comprehension Test score. The students were given a unit of work on linear measure. At random, they were given the unit in either English, Spanish, or bilingually. Pairs were given materials in the same language. The students were allowed to work alone or with their pairmate, as they chose. A pre-test and post-test on linear measure were administered. Questionnaires and a sociogram were then administered to selected students to determine the extent and style in which paired students worked together. Observations by the teachers were used to supplement the questionnaire data.

RESULTS

The English dominant students paired with Spanish dominant students achieved significantly better ($p < .05$) on the post-test than did English dominant students paired with English dominant students. 2. The Spanish dominant students paired with English dominant students achieved significantly better ($p < .05$) on the post-test than did Spanish dominant students paired with Spanish dominant students. 3. The Bilingual materials had no significant effect upon achievement in any of the paired groups. 4. The Spanish dominant students cooperated more with their pairmates than did the English dominant students. 5. The English dominant students required a greater amount of teacher assistance than did the Spanish dominant students. 6. The Mixed dominant groups tended to use both English and Spanish for oral communication except when one of the pairmates was noticeably less proficient in one language. Some students used this opportunity to practice their non-dominant language skills.

Order No. 76-24,089, 241 pages.

SPECIAL EDUCATION

A COMPARATIVE INVESTIGATION OF VERBAL AND PERFORMANCE INTELLIGENCE MEASURES AT DIFFERENT AGE LEVELS WITH BILINGUAL SPANISH-SPEAKING CHILDREN IN SPECIAL CLASSES FOR THE MENTALLY RETARDED (RESEARCH STUDY NUMBER 1)

(Order No. 67-1098)

Louis Alexander Bransford, Ed.D.
Colorado State College, 1966

STATEMENT OF THE PROBLEM

The purpose of the present study was to investigate the performance of bilingual Spanish-speaking children in special classes for the mentally retarded on the *Wechsler Intelligence Scale for Children*. The study attempted to determine the extent of disparity between Verbal Scale scores and Performance Scale scores at three different age levels when tested at intervals from two to four years apart.

The following questions were studied:

1. Do bilingual Spanish-speaking children in special classes for the mentally retarded when tested with the WISC tend to score higher or lower on the Performance Scale than on the Verbal Scale, thus causing a significant disparity between the two scores?
2. If such a disparity is found—with the Performance Scale scores higher than the Verbal Scale scores as has been shown by other studies—will the Verbal Scale scores of bilingual Spanish-speaking children in special classes for the mentally retarded tend to increase more than the Performance Scale scores as age increases, thus reducing the disparity between the two scores?

METHODS AND PROCEDURES

Sixty bilingual Spanish-speaking children attending special classes for the mentally retarded in Santa Fe, New Mexico, composed the experimental group. They were compared with thirty-four non-bilingual English speaking children attending special classes for the mentally retarded in Greeley, Colorado, who came from similar socioeconomic backgrounds.

The WISC, which provides Verbal, Performance, and Full Scale IQ scores was

the major measuring instrument utilized in the investigation. Two administrations, two to four years apart, were used for comparison purposes. In this investigation, the WISC was administered to the experimental group and the mean Verbal and Performance IQ scores obtained were compared with the mean Verbal and Performance IQ scores of a previous administration. The subjects were then divided into three age groups, ranging from eight to sixteen years of age. The comparison of the Verbal and Performance scores at the different age levels was then investigated statistically with the use of t-tests of related measures.

WISC IQ scores for the control group were obtained from the cumulative records in the Special Education Laboratory School in Greeley, Colorado.

An abbreviated version of the *Warner Index of Status Characteristics* was used to obtain a socioeconomic status rating for each subject in both groups. Two primary ratings (father's occupation and residential location) were weighted and combined to form a single rating of status. All of the experimental group were classified as below average in socioeconomic status. The low socioeconomic status of the experimental group, therefore, determined the status of the control group.

SUMMARY OF FINDINGS

1. For the total experimental group, the mean Performance IQ scores were significantly higher on the average than the mean Verbal IQ scores on both administrations of the WISC.
2. For the three experimental age groups, the mean Performance IQ scores were significantly higher on the average than the mean Verbal IQ scores on both administrations of the WISC.
3. As age increased the disparity between Verbal and Performance scores tended to increase which was opposite to the prediction that the disparity between Verbal and Performance scores would decrease with age.
4. The control group revealed no significant differences between Verbal and Performance scores on either administration or when divided into age groups.

CONCLUSIONS

1. Bilingual Spanish-speaking children in special classes for the mentally retarded when compared with non-bilingual English speaking children in special classes for the mentally retarded who come from similar socioeconomic backgrounds score significantly higher on the average on the Performance Scale of the WISC than on the Verbal Scale. These differences between mean Verbal and Performance scores will continue to be present when the WISC is re-administered two to four years later, and when different age groups are utilized for comparison purposes on both the first and second administration of the WISC.

2. The difference between the Verbal and Performance scores of bilingual Spanish-speaking children in special classes for the mentally retarded tends to increase as age increases thus causing a greater disparity between the Verbal and Performance scores. No significant differences of this kind were found for the non-bilingual English-speaking control group. At the eight and nine year age level, the increase in disparity between Verbal and Performance scores was a result of both Verbal and Performance scores increasing. The performance scores, however, increased more than the Verbal scores over the two to four year testing interval thus causing the increase in disparity. At the ten and eleven year level the significant increase in disparity between Verbal and Performance scores is a result of the Verbal scores decreasing slightly and of the Performance scores increasing almost significantly from the first to the second administration of the WISC. At the twelve to sixteen year level the significant increase in disparity between Verbal and Performance scores is a result of the Verbal scores decreasing significantly while the Performance scores remain relatively stable from the first to the second administration of the WISC.

3. The disparity between Verbal and Performance scores is greater at an older age level than at a younger age level when two different age groups of bilingual Spanish-speaking children in special classes for the mentally retarded are tested on the WISC. No significant differences were found for the non-bilingual English-speaking control group.

Microfilm \$3.00; Xerography \$6.60. 139 pages.

THE EFFECTS OF CULTURAL BILINGUALISM UPON THE ABILITY OF SPECIAL CLASS EDUCABLE MENTALLY RETARDED CHILDREN TO TRANSFER WORD MEANINGS FROM NON-STANDARD ENGLISH TO STANDARD ENGLISH

Donald Lavonne Ware, Ph.D.
The Ohio State University, 1970

Adviser: Professor G. Orville Johnson

This study was designed to investigate the relationship between the use of public language by special class educable mentally retarded and regular class borderline children and its effects upon verbal cognitions. The investigation was specifically concerned with word meaning, and the ability of the child to transfer word concepts from non-standard English to standard English forms.

In addition, an attempt was made to determine if certain developmental and/or grouping effects would show a significant relationship to verbal ability within these sample groups.

A review of the literature revealed that very little research has been done relative to educable mentally retarded populations in which (1) language development has been defined in broad terms using communication behavior rather than speech pathology *per se* as a functional basis for direct observation and evaluation, and (2) whose subjects are reflective of lower socioeconomic non-institutionalized populations.

The standard and modified form of the *Word Meaning Test* of the *Stanford Achievement Test, Form W, Primary Battery II* was administered to a group of special class educable mentally retarded and a group of regular class borderline children. Taking into consideration the low reading ability of both the educable mentally retarded and borderline subjects, the test was administered verbally to each subject, requiring a verbal response in the selection of the correct word.

The data was analyzed to yield inter group as well as intra group verbal achievement scores.

It was hypothesized that there will be no significant differences between the educable mentally retarded and borderline group's ability to transfer word meanings from non-standard English to standard English as measured by both the standard and a modified version of the *Word Meaning Test of The Stanford Achievement Test, Form W, Primary Battery II*.

The major conclusion of the study was that children from lower class groups display an ability to conceptualize, transfer and communicate within and between two language forms. It is also apparent from the results of this study that a bilingual co-existence is prevalent among children from lower-class groups.

Order No. 71-7589, 76 pages.

CAREER EDUCATION

THE EFFECT OF TWO SHORTHAND SYSTEMS IN SPANISH ON THE TEACHING OF SHORTHAND IN ENGLISH TO BILINGUAL SECRETARIAL STUDENTS OF PUERTO RICO

(Order No. 68-11,797)

Amalia Llabrés-de-Charneco, Ph.D.
New York University, 1968

Chairman: Professor Peter L. Agnew

THE PROBLEM

The purpose of this investigation was to compare achievement and time required in learning by students in English shorthand classes receiving simultaneous instruction in Spanish shorthand using the Gregg system with those of students receiving instruction in Spanish shorthand using the Muniz-O'Neill system.

REASONS FOR UNDERTAKING THE STUDY

The teaching of English and Spanish shorthand in the secretarial curriculum of the public schools of Puerto Rico takes at least four semesters of instruction for each course limiting the other subjects needed for the overall preparation of the students. Likewise, there is a need to improve instruction in English shorthand as evidenced by: large numbers of dropouts, failures and low grades; decreasing enrollment and inability of students to pass English shorthand job entrance examinations.

Consequently, the problem of reducing the time devoted to the teaching of English and Spanish shorthand, to make room for more general and social business subjects and, at the same time, improve shorthand instruction is important. This study sought to determine whether this could be accomplished by the simultaneous presentation of the Gregg system in the teaching of the first year of English and Spanish shorthand.

PROCEDURE USED IN COLLECTING AND TREATING DATA

The research data were collected in Republica de Colombia High School. The curriculum in this school was modified for the experiment so that the students could take English and Spanish shorthand simultaneously.

A sample of seventy students was drawn from the population of tenth grade students following the secretarial specialization. Different students' characteristics were considered—general intelligence, age, scholastic achievement, sex, and reading ability in English and Spanish—to equate the two groups that formed the experimental (A) and the control (B) groups.

The teacher selected for the experiment was given sixteen-week training to familiarize her with the Gregg system in Spanish and the procedure to be used in the study.

Both the experimental and control groups took Spanish and English shorthand simultaneously in two separate classes but with the same teacher and utilizing three shorthand systems: Gregg system in English and Gregg system in Spanish (experimental group) and Gregg system in English and Muniz-O'Neill system in Spanish (control group).

The achievement of students was measured by timed dictation and transcription. A test given at the end of the experiment was used to measure differences between the two groups.

Comparison of effectiveness was made by applying the *t* test to the group means to measure the significance of the differences at the 5 per cent level. The time required for learning the elementary shorthand principles was determined by comparing the dates in which each group finished each chapter of the book.

FINDINGS

The students' scores in the final test were used to determine the means of groups A and B in shorthand symbols, longhand transcription, and the sum of both. The means in the three cases showed a difference in favor of the experimental group. When applying the *t* test of significance to these means, it was found that the means did not differ significantly. In all cases *t* was less than 1.98, the 5 per cent of *t* for 63 degrees of freedom. When comparing the dates in which group A and group B finished the different chapters of the book, almost no difference was observed between the two groups. Consequently, the hypothesis advanced that the use of the Gregg method in teaching English and Spanish shorthand in a parallel learning situation will obtain results in the learning of English shorthand superior to those obtained by using the Muniz-O'Neill system was rejected.

Microfilm \$3.00; Xerography \$5.40. 106 pages.

EFFECTIVENESS OF A BILINGUAL VOCATIONAL-TECHNICAL DEVELOPMENTAL PROGRAM

(Pages 103-134, previously copyrighted material not microfilmed at request of author. Available for consultation at University of Missouri Library at Columbia)

Johnnie W. McClinton, Ph.D.
University of Missouri—Columbia, 1972

Supervisor: Robert Callis

PURPOSE

This study was designed to evaluate the effectiveness of the Bilingual Vocational-Technical Developmental Program at Texas State Technical Institute—Harlingen Campus, through achievement testing in both English and idiomatic Spanish languages. Specifically the questions asked were: (1) Do the Mexican-American students express their competencies better in "Tex-Mex" than in English upon entering training; (2) Does the developmental program achieve its goal of assisting the Mexican-American students to increase their competencies and express these in English; and the supporting question, (3) How do the Mexican-American students at Harlingen compare with students (mostly Anglo) in a similar program at the Waco Campus? This study was conducted between September and December, 1971.

METHODOLOGY

The Numerical Competence, Reading and Technical Comprehension Tests of the Stanford Achievement Test, High School Level was translated into idiomatic Spanish and both language versions were administered to forty-nine Mexican-American students at the Harlingen campus and forty-seven students at the Waco campus. Data on thirty-nine of the Harlingen group and thirty-seven of the Waco group were usable in the study.

Two scoring methods were investigated and the "Rights only" scores were selected for use in statistical comparisons. Mean gain scores were used for evaluation of the program.

FINDINGS

The Mexican-American students began the training program expressing their numerical competencies equally well in both languages. In Reading and Tech-

nical Comprehension, they express themselves at a significantly higher level in English.

The students made significant gains in all three areas during the training program. Some gain was noted on the Spanish version tests, but the most gain was in English version tests. The developmental training program succeeded in preparing these students to enter the more formal technical training programs.

When compared with the Anglo students, the Mexican-American students achieved at a comparable level in Numerical Competence and Reading both at the beginning and at the end of the training program. However, the Anglo students achieved significantly higher in Technical Comprehension both at the beginning and at the termination of the training program. This can probably be attributed to the previous high school training in this area for many of the Anglo students. The Anglo group made a significant gain during the training program only in Numerical Competence.

The bilingual approach to instruction was effective and should be continued. Except for special cases, achievement testing should continue using standardized English version tests, since the Mexican-American student can express his competencies at least as well through written English as through written Spanish. The advantage of the bilingual approach to instruction is in oral communication rather than through written expression for these students.

Order No. 73-21,459, 113 pages.

THE DEVELOPMENT OF OCCUPATIONAL AND BILINGUAL CURRICULA DESIGNED TO SERVE THE NEEDS OF SPANISH-SPEAKING TRAINEES WITHIN MANPOWER SYSTEMS

Rodriguez, Benjamin, Ed.D.
University of Massachusetts, 1975

Director: Arthur W. Eve

The general purpose of this study is to examine the need for bilingual occupational education curricula for Spanish-speaking trainees within manpower programs, and to develop examples of flexible bilingual curricula in selected areas of occupational education. Information on the history of migration between the Island of Puerto Rico and the mainland United States is presented along with an overview of manpower training legislation and its effect upon

this Spanish-speaking population. A detailed description of the Concentrated Employment Program in Springfield, Massachusetts is also provided.

The author contends that the development of Manpower Programs, beginning with the legislative mandate of 1962, have neither adequately met the needs nor served the interests of the Puerto Rican population on the mainland of the United States. For the most part, Manpower Training Programs have not been equipped to cope with the specific needs of Spanish-speaking citizens and, as a result, many of the standard manpower programs have been implemented with little or no success. The dissertation delineates a number of reasons for the failure of these programs.

Consistent with the author's experience this dissertation presents a flexible bilingual occupational educational curriculum that will serve the particular needs of the Puerto Rican trainee. The curriculum is designed to give the trainee the opportunity to use and learn English effectively while overcoming language barriers to learning a trade. The author contends that this is the first realistic step for the Spanish-speaking person toward succeeding in an English-speaking environment.

The Bilingual Occupational Program units presented are designed as short curricular elements that are intended to be five to six hours in length. Utilizing this format enables the trainees to be exposed to as many different occupations as possible so that choices are available to them on a realistic basis. The curriculum focuses on the immediate needs of trainees in order that they might cope more effectively with cultural or language based problems involved with the daily tasks of living and working in an English-speaking environment.

The final section of the dissertation presents the author's reflections on his experience as a manpower trainer, administrator and consultant as well as his conclusions and recommendations for the design of future Bilingual Manpower Training Programs.

Order No. 76-5390, 209 pages.

EFFECTS OF A BILINGUAL/BICULTURAL CAREER GUIDANCE PROJECT ON THE OCCUPATIONAL ASPIRATIONS OF PUERTO RICAN ADOLESCENTS

Shiraishi, Reyko Ruth, Ed.D.
Boston University School of Education, 1975

Major Professor: Jane S. O'Hern

This study examined the effects of a career guidance project on the level of occupational aspirations of bilingual/bicultural Puerto Rican adolescents. The experimental treatment utilized role modeling techniques within two methodologies, namely, field trips and group discussions.

The career guidance project consisted of six sessions and involved career role models and counselors who were both bilingual and bicultural. The subjects in the study were Puerto Rican boys and girls who were enrolled in a summer Neighborhood Youth Corps program. The experimental group experienced the career guidance project, while a comparison group received no experimental manipulation, but instead engaged in work-experience activities.

Two dimensions of occupational aspirations, level of occupational aspiration and level of occupational choices, were examined using the Occupational Aspiration Scale and an occupational choice measure. The two instruments were administered to both groups before and after the project; four weeks later, the instruments were again given to both groups. The obtained data were subjected to the two-way analysis of variance with repeated measures to assess the results.

The major findings of the study were:

1. There was no significant difference in level of occupational aspiration between the experimental and comparison groups immediately following the conclusion of the project. When the results for the experimental group obtained in the three test situations were examined, however, significant differences in level of occupational aspiration were noted. The experimental group significantly increased in level of occupational aspiration from pre- to posttest; one month later, they had maintained their increased occupational aspiration level obtained at posttest.
2. There was no significant difference in occupational choices of the students in the experimental and comparison groups. This finding was noted both at posttest and again four weeks later.
3. There were apparent differences in the way in which the sexes were affected by the project. When the pre- and posttest occupational aspiration scores of the experimental girls and boys were examined, the girls clearly had made a significant gain in level of occupational aspiration. In contrast, the boys' increase in level of occupational aspiration from pre- to posttest was minimal.
4. An additional finding which was generated by this study was the significance of the length of residence in the continental United States in relation to occupational aspirations. Analysis of the data obtained from the Occupational Aspiration Scale revealed that those students who had resided in the United States mainland longer had a proportionately higher level of occupational aspiration. These results demonstrated that occupational aspirations may be related to the number of years an individual has lived in the mainland.

On the basis of the findings, it was concluded that the career guidance project did have an effect on raising occupational aspirations. In addition, the girls' level of occupational aspiration was affected more than was the level of occupational aspiration of the boys. The project did not, however, have a significant effect upon students' occupational choices.

The findings of this study reflect the importance of developing special learning experiences for bilingual/bicultural youngsters. Many Puerto Rican children must overcome cultural and linguistic barriers to two cultures and two languages. In addition, many of them are burdened by the problems related to economic poverty. Their multiple handicaps are often reflected in minimal educational and occupational attainment. If Puerto Rican children are to develop to their full potential and be able to assume productive roles as adults, the commitment of significant persons who can make a difference in the lives of these youngsters must be enlisted. Schools and the community must work together in order to discover and implement meaningful ways of achieving this goal.

Order No. 75-20,932, 186 pages.

THE VOCATIONAL EDUCATION AMENDMENTS OF 1968 AND 1974: POSTSECONDARY DISADVANTAGED- BILINGUAL VOCATIONAL EDUCATION PROGRAMS FOR THE SPANISH-SURNAMED, SPANISH-SPEAKING STUDENTS IN THE UNITED STATES

Béloz, George, Ph.D.

Southern Illinois University, 1976

Major Professor: John B. Hawley

The purpose of this study was to describe the PDBVE (Post-secondary Disadvantaged-Bilingual Vocational Education) programs which were funded under the Vocational Education Amendments of 1968 (VEA 1968) and Part J of the Vocational Education Amendments of 1974 (VEA 1974), with special reference to the Spanish-surnamed, Spanish-speaking students.

The investigation was part of a national study on bilingual vocational education funded through the Illinois Division of Vocational and Technical Education to Southern Illinois University at Carbondale. Only that data which related to the post-secondary vocational education programs for the above target group of students were used in this study.

A questionnaire developed by the researcher and approved by experts in the field was used to gather the data about current and future PDBVE programs. A population of fifty-one directors of state Research Coordinating Units (RCUs) was used, which were the fifty states and the District of Columbia. Eighty-two percent of the RCUs responded.

Three assumptions were made with respect to the two acts, VEA 1968 and VEA 1974: (1) that many states which have significant numbers of Spanish-surnamed, Spanish-speaking residents whose first language is not English have not developed sufficient numbers of special PDBVE programs and projects necessary to make a positive difference in training bilingual students; (2) that many states which have special programs for postsecondary disadvantaged students have not maintained current statistics on the numbers of Spanish-surnamed, Spanish-speaking students enrolled and participating in PDBVE programs, and (3) that many states which report on the current status of PDBVE programs also report on the need for extending the numbers of PDBVE programs in the future. Information was obtained about the states which have PDBVE programs, the VEA 1968 and VEA 1974 parts used for funding, State Plan provision for PDBVE programs, the numbers of programs by occupational categories, the number of students enrolled, the amount of funds used, the extent of perceived interest in and support for the PDBVE programs, and the estimated future support for PDBVE programs.

Among the major findings derived were: (1) seventeen states (33%) have established PDBVE programs and plan to continue them; (2) thirteen states (26%) do not have established PDBVE programs but plan to start them in the future, and (3) twenty-one (41%) of the states do not have PDBVE programs and do not plan to have them in the future. Other findings related to nine research questions were also presented.

Recommendations consider: (1) the need for precise quantification on the numbers of Spanish-surnamed, Spanish-speaking students enrolled in the recognized vocational categories rather than the general label of "disadvantaged;" (2) the need for greater variety of programs in which PDBVE students are enrolled; (3) the need for identification and assessment of the educational techniques which can bring about quality instruction while reducing the level of apprehension concerning the value of bilingual vocational instruction; (4) the need for a study to assess the impact of the VEA 1968 and VEA 1974 upon PDBVE programs for the non-English speaking vocational students, and (5) the need for a study to identify characteristics, goals, and future plans of Spanish-surnamed, Spanish-speaking PDBVE students.

Order No. 76-28,724, 139 pages.

THE NEED FOR BILINGUAL VOCATIONAL EDUCATION PROGRAMS IN SECONDARY SCHOOLS AS PERCEIVED BY BILINGUAL AND VOCATIONAL PROGRAM DIRECTORS, VOCATIONAL COUNSELORS, SECONDARY SCHOOL COUNSELORS, AND INDUSTRY REPRESENTATIVES IN TEXAS

Salazar, Arturo, Ph.D.
Texas A&M University, 1976

Chairman: Dr. James E. Christiansen

PURPOSE

The purpose of this study was to determine the need for Spanish-English bilingual vocational education programs in secondary schools in Texas as perceived by bilingual directors, vocational directors, vocational counselors, secondary school counselors, and industry representatives. Supporting objectives were: 1. Determine the extent of agreement among bilingual directors, vocational directors, vocational counselors, secondary school counselors, and industry representatives regarding the need for bilingual vocational education programs. 2. Determine the opinions held concerning selected issues pertaining to bilingual vocational education programs as perceived by the five groups. 3. Determine the extent of agreement concerning the need for bilingual vocational education programs as perceived by bilingual directors, vocational counselors, and secondary school counselors with and without vocational education teaching experience. 4. Determine the extent of agreement concerning the need for bilingual vocational education programs as perceived by bilingual directors and secondary school counselors with and without world-of-work experience. 5. Determine if a relationship exists between perception of need for bilingual vocational education programs, as expressed by the five groups and the percent of Spanish-speaking students in school districts in or with which respondents work.

PROCEDURES

Data from opinionnaires were obtained from 636 respondents, a 65 percent return. Six null hypotheses related to objectives and derived from a theoretical base were tested using descriptive statistics, analysis of variance with the Scheffé test where applicable, and Chi-square. The .05 level of significance was used for accepting null hypotheses.

MAJOR FINDINGS

Significant differences were found among the five groups regarding 19 of 28 perception statements, seven of 15 attitude scale bi-polar adjectives pertaining to the need for bilingual programs of vocational education, and seven of 15 selected issues. In 69 percent of the group comparisons pertaining to the need for bilingual vocational education, industry representatives viewed the problem differently from the four school groups. Significant perception statements appearing most often concerned school districts' goals, creating functionally literate individuals through bilingual education, confusion of bilingual education goals, and helping students feel a need for using English. Significant issues most commonly appearing concerned language difficulties, integration of bilingual and vocational programs, and requiring special training for teachers. The most common significant bi-polar adjectives were bad/good, satisfying/frustrating, false/true, and rewarding/unrewarding.

Significant differences existed among federal and state bilingual program directors regarding 14 perception statements and 14 attitude scale adjectives.

Significant differences existed among responses of bilingual directors with and without vocational education teaching experience on four issues, five perception statements, and eight bi-polar adjectives with the former not perceiving a need for bilingual vocational education. Among the vocational counselors, significant differences existed on five issues and five perception statements, but not on attitude scale adjectives. While no significant differences existed among responses of secondary school counselors to issues, a significant difference existed concerning teaching technical terms used on-the-job. No significant differences existed among bi-polar adjectives.

No significant differences on issues were detected among responses of either bilingual directors or secondary school counselors with or without world-of-work experience. Differences among directors were detected for one perception statement, that of creating functionally literate individuals in both Spanish and English through bilingual education, and one bi-polar adjective, that of false/true.

Different means were detected for four perception statements and the scale item, false/true, among secondary school counselors.

Bilingual directors perceived the need for bilingual vocational education differently from the other four groups in relation to percent of Spanish-speaking students in school districts.

Polarity of viewpoints and strong feelings were detected among the five groups about the concept of bilingual vocational education.

Order No. 77-12,590, 332 pages.

AUDIO-VISUAL MEDIA

AN OPERATIONAL MODEL FOR BILINGUAL, TRI-ETHNIC EARLY CHILDHOOD EDUCATION TELEVISION PROGRAMMING

Palmoneada Blevins Brown, Ed.D.
University of Houston, 1973

Chairman: Dr. Carl E. Schomburg

The purpose of this study was to develop an operational model for bilingual, tri-ethnic early childhood education television programming. Bilingual was defined as: (1) the Spanish most commonly used by the Mexican American of the Southwestern United States; and (2) English, including Black English. Tri-ethnic was defined as the Mexican American, Negro, and Anglo.

The study further established guidelines for four stages of program development for an early childhood education television program which included:

- Stage 1 — The planning stage with its component parts of organizational structure, needs assessment, feasibility analysis, and product design.
- Stage 2 — The production stage with its component parts of television scripts and television tapes.
- Stage 3 — The implementation stage which included the home and the community.
- Stage 4 — The evaluation stage which included the product and the process.

The procedure followed a detailed analysis of two existing early childhood education television programs: "Sesame Street," produced by the Children's Television Workshop in New York City, and "Around the Bend," produced by the Appalachia Educational Laboratory in Charleston, West Virginia.

The following guidelines were established as a result of the study:

1. What is the organizational structure for the planning, production, implementation, and evaluation stages of the program?
2. What is the design of the needs assessment technique to be employed in the program?
3. What is the design of the feasibility analysis procedure to be employed?

4. What are the elements to be included in the product design?
5. What is the process to be employed in the production of television scripts for the program?
6. What is the process to be employed in the production of tapes for the program?
7. What is the strategy to be employed to implement the program in the home and community?
8. What is the product and process evaluation design to be employed in the program?

The study consisted of the development of an operational model for a bilingual, tri-ethnic early childhood education television program based on the established guidelines. Guidelines 1 through 4 were applied to the planning stage of the model, guidelines 5 and 6 to the production stage, guideline 7 to the implementation stage, and guideline 8 to the evaluation stage. The bilingual, tri-ethnic, early childhood education, and television elements were interwoven throughout the operational design of the conceptual model.

It was concluded that a viable set of guidelines which would support the development of a bilingual, tri-ethnic model could be ascertained from a careful analysis of existing early childhood education television programs.

As a result of the present study, it is recommended that:

1. A study be made of existing early childhood education television programs, other than "Sesame Street" and "Around the Bend," to determine if the guidelines developed in this study are viable for widespread use.
2. Criteria be developed for the following components of a bilingual, tri-ethnic early childhood education television program based on the guidelines established in this study: a. Determining the organizational structure for the planning, production, implementation, and evaluation stages. b. Designing the needs assessment technique. c. Designing the feasibility analysis procedure. d. Determining the elements to be included in the product design. e. Determining the process to be employed in the production of television scripts. f. Determining the process to be employed in the production of television tapes. g. Determining the strategy to be employed to implement the program in the home and community. h. Determining the product and process evaluation design.
3. A study be made to determine the feasibility of using bilingual, tri-ethnic television tapes as options within modules to train teachers in early childhood education.

Order No. 74-2850, 178 pages.

ON PREDICTING THE EFFECTS OF A BILINGUAL CHILDREN'S EDUCATIONAL TELEVISION PROGRAM

Monty Carlis Stanford, Ph.D.
The University of Texas at Austin, 1973

Supervisor: Frederick Williams

Quantitative models were developed for the prediction of learning effects of a bilingual children's educational television program. The models were developed through the use of multiple linear regression analysis of data collected on 408 Mexican-American children in grades kindergarten-second at nine test sites across the nation. The stimulus television program was *Carrascolendas*, a series of thirty half-hour programs broadcast nationally on the Public Broadcasting System.

The criterion variables for the prediction equations were learning gains in the concept areas of history/culture and science. Learning gains were measured with a criterion-referenced test, where test items represented a sampling of the behavioral objectives of the series. This test was administered orally in Spanish and in English.

The results of model development indicated that measures of the amount of bilingual instruction, number of television programs viewed by the child, the background of the teaching staff, the use of supplementary activities, and pretest scores were the most useful predictors of learning effects.

The results were discussed in terms of implications for research, theory, and policy-making of educational television.

Order No. 74-5333, 147 pages.

THE EFFECTS OF THE BILINGUAL SPANISH/ENGLISH TELEVISION SERIES "CARRASCOLENDAS" ON THE ORAL LANGUAGE SKILLS OF SELECTED PRIMARY CHILDREN

Arlene Vigil Sutton, Ed.D.
University of Colorado, 1973

Supervisor: Assistant Professor Thomas Giblin

The purpose of this study was to measure the learning effects of *Carrascolendas*, a Spanish/English television series on selected primary school children

in Pueblo, Colorado. One hundred and sixty children were randomly selected and tested with two criterion referenced tests, one in Spanish and one in English. One hundred and twenty-eight of the same children were post-tested ten weeks after viewing the series. To test the hypotheses that there would be no significant difference between viewers and non-viewers, post-test scores were analyzed between: 1) children who viewed the series and those who did not view *Carrascolendas*, 2) Mexican-American and Non-Mexican-American children and 3) between grade levels of kindergarten, first, second, and third grades. The experimental group was composed of forty-eight Mexican-American and forty-eight Non-Mexican-American children. The control group consisted of sixteen Mexican-American children and sixteen Non-Mexican-American children. Statistical tests revealed that in terms of the English test results, the viewers achieved significantly over the non-viewers with the difference found with the Mexican-American first grade viewers. Overall there appeared to be no difference between the Mexican-American and Non-Mexican-American children who viewed the series as measured by the English pre-test and post-test results.

The analysis of the Spanish test data revealed that there were significant differences at the .05 level in favor of the children who viewed the series and those who did not. Most gains were noted in the Mexican-American experimental kindergarten, first, and second grades, as well as with the Non-Mexican-American third grade experimental group.

Overall this study suggests that viewing *Carrascolendas*, the bilingual Spanish/English television series helped the achievement of primary children, especially among Mexican-American at the first grade level.

Order No. 73-32,597, 188 pages.

A STUDY OF THE EFFECTIVENESS OF LANGUAGE REINFORCED BY SIMULTANEOUS ACTION IN BILINGUAL EDUCATIONAL TELEVISION PROGRAMS FOR YOUNG CHILDREN

Bain, Helen Pate, Ed.D.
The University of Tennessee, 1974

Major Professor: Dewey Stoller

The purpose of the study was to determine the effect of language reinforced by simultaneous action on the comprehension of television segments by Spanish, English, and bilingual speakers from four to eight years of age. Questions to be answered by this study were as follows:

Major Question: Is learning from TV segments associated with language comprehension (Spanish for Spanish-speaking children or English for English-speaking children) facilitated when the language is reinforced by simultaneous action?

Sub-Questions: 1. Do children who do not understand the language used in TV segments perform better when the language is reinforced by simultaneous action? 2. Do children who do understand the language used in TV segments perform better when the language is reinforced by simultaneous action? 3. Is there a difference in the performance of children who understand the language used in TV segments when the language is reinforced by simultaneous action and the performance of children who do not understand the language that is reinforced by simultaneous action? 4. Is there a difference in the performance of children who understand either English or Spanish when both Spanish and English are used in a TV segment and when only one of the languages is used?

Related Questions: 1. Is there a difference in the performance of children when the TV segment is animated and when the TV segment has professional actors? 2. Is there a difference in the performance of children when the TV segment has child actors and when the TV segment has only adult actors?

The data used were collected in seven major cities. The subjects were four-to-eight year old children who spoke Spanish or English or were bilingual, and were in nursery, kindergarten, first, or second grade. They viewed two pilot shows on different days and were individually tested immediately after each viewing. For this study 12 of the 41 segments were used, and they fell into the following categories:

Reinforced	Nonreinforced
2 Spanish	2 Spanish
2 English	2 English
2 Bilingual	2 Bilingual

An analysis of the data produced the following findings:

Major Question. The χ^2 tests with a significant difference at the .001 level in the responses of the children on the reinforced and nonreinforced segments for all three language categories definitely supported the fact that children performed better when the language was reinforced by simultaneous action.

Sub-question One. Children who did not speak the language performed better when the language was reinforced by simultaneous action.

Sub-questions Two and Three. Children who understood the language did perform better when the language was reinforced by simultaneous action. However, the improvement in performance was less than that of children who did not understand the language. These findings indicated the importance of lan-

guage being reinforced by simultaneous action for all children, but especially for children who do not speak the language.

As a result of the findings the following are some of the conclusions that were reached:

1. In bilingual teaching the use of simultaneous action as a reinforcement for the language is very effective.

2. Language reinforced by simultaneous action is beneficial for all learners. However, it is not as necessary for those who understand the language as it is for those who do not understand the language.

3. Language reinforced by simultaneous action is a necessary production technique for the producers of bilingual educational television programs.

4. One could conclude that bilingual children can comprehend, more easily or as easily, material that is presented bilingually, than material which is monolingual.

5. The results showed that young children who are bilingual can achieve as well as monolingual children, and thus teachers should encourage children to retain their bilingualism because it will be advantageous to them as they continue their education, especially in high school where second languages are generally taught.

Order No. 75-11,142, 150 pages.

BILINGUAL DRUG ABUSE COMMUNICATION

Hepler, Susanne Elster, Ph.D.
Texas A&M University, 1975

Chairman: Dr. Carl W. Landiss

PURPOSE

The purpose of this study was to determine the effects of special, bilingual explanations of drug abuse treatment services on the rate and characteristics of Mexican-American admissions to agencies providing those services.

PROCEDURE

Procedures used in the study consisted of:

- (1) development of an Advisory Group of drug abuse specialists, community planning experts, communications professionals and Mexican-American community leaders. This group provided guidance and counsel in the development

of written and audio-visual materials and in the selection of sites most appropriate for treatment;

(2) development of bilingual brochure material and an audio-visual presentation, both of which contained the same factual material in description of treatment programs operating in Harris County, Texas;

(3) presentation of audio-visual materials and distribution of written materials in community centers. This treatment was conducted in such a way as to produce rapid extension of information into Mexican-American populations of two separate sectors of the community, each of which represented approximately one-third of the total Mexican-American populace of the County; and

(4) comparison of Mexican-American intakes into treatment programs between the two areas of study treatment and between each of those areas and a third district which was used as a control group, receiving neither brochures nor audio-visual materials.

RESULTS

Data produced from the study showed a significant increase in intakes from the area receiving audio-visual presentations, as against intakes prior to such treatment. The study also showed a marked change in the profiles of clients from the audio-visual presentation area, placing them in much closer congruity to control group profiles after presentations.

Order No. 75-25,110, 148 pages.

AN ANALYSIS OF THE PERSONAL-SOCIAL PROBLEMS CONSIDERED IMPORTANT BY THE JUNIOR-HIGH-SCHOOL ADOLESCENT ACCORDING TO SEX, GRADE, AGE, INTELLIGENCE QUOTIENT AND BILINGUALISM (VOLUMES I AND II)

(Publication No. 18,763)

James Richard Hayden, Ed.D.
Boston University School of Education, 1956

THE PROBLEM

The personal-social problems considered important by 1,934 pupils in grades 7, 8 and 9 of the New Bedford Public Schools, Massachusetts, were studied to determine the relationship of these problems to sex, grade, age, intelligence quotient and bilingualism.

METHODS OF INVESTIGATION

After translating and telescoping the pupils' statements of their problems obtained during a guaranteed anonymous free-writing situation, two forms of a problem inventory were built and administered to the same grades. Each form contained 229 problem statements grouped in 14 sections. The fourteenth section contained 25 repeated statements while 34 statements were common to both forms. The pupil was directed to mark each statement as follows:

- X — Problem is not true for you personally.
- N — Problem is true but does not trouble you at all.
- S — Problem is of some concern to you personally.
- G — Problem is of great concern to you personally.
- ? — Don't understand what the problem means.

Responses were analyzed with respect to five characteristics, sex, grade, age, intelligence quotient and lingual ability.

METHODS OF REPORTING RESULTS

Percentages were used to report the frequencies of each item and of each problem area for the five characteristics studied. Fourfold chi square contingency tables were utilized to test the significance of the difference between the frequencies of each item reported. Differences at the 1 per cent and 5 per cent levels of confidence were reported for the total group and at the 1 per cent level for the 320 bilinguals due to the smaller numbers involved.

FINDINGS CONCERNING THE TOTAL GROUP

Some of the findings concerning the total group were:

1. Girls marked more problems than boys, (48 versus 44 problems per pupil).
2. Average number of problems per pupil decreased from 48 in grade 7 to 45 in grade 9.
3. Pupils with below-average-intelligence quotients marked more problems

than the above-average-intelligence-quotient group, (50 versus 42 problems per pupil).

4. The area of chief concern for boys was *About Getting Along With My Teachers* for grades 7 and 8 but changed to *About My Fears, Worries and Emotions* in grade 9.

5. Chief concern for girls was the area *About My Fears, Worries and Emotions* for all grades.

6. Retardates were chiefly concerned in the area *About My Fears, Worries and Emotions* for grade 7 but changed to *About My Studies* for grades 8 and 9.

7. Accelerates were chiefly concerned in the area *About My Fears, Worries and Emotions* in grades 7 and 8 but changed to *About My Studies* in grade 9.

8. Pupils with above and below-average-intelligence quotients were concerned with the area *About My Fears, Worries and Emotions* in grade 7, *About Getting Along With My Teachers* in grade 8 and *About My Studies* in grade 9.

FINDINGS CONCERNING THE BILINGUALS

The ethnical composition of the bilingual group was in rank order Portuguese, French and Polish. When they were compared with the monolinguals, some of the findings were:

1. At each grade level, the bilinguals were older and had lower intelligence quotients.

2. Bilinguals marked more problems than the total group, (56 versus 46 problems per pupil).

3. Bilingual boys differed chiefly from the monolingual boys in the area *About My Fears, Worries and Emotions*.

4. Bilingual girls differed chiefly from the monolingual girls in the area *About Getting Along With Parents*.

5. Bilingual boys resembled the monolingual boys mainly in the areas *About Boy-Girl Problems* and *About The Future: Jobs*.

6. Bilingual girls resembled the monolingual girls mainly in the area *About Getting Along With My Teachers*.

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V. AFFECTIVE DOMAIN

SELF-CONCEPT

THE RELATIONSHIP OF BILINGUAL/BICULTURAL INSTRUCTION TO THE ACHIEVEMENT AND SELF-CONCEPT OF SEVENTH GRADE MEXICAN-AMERICAN STUDENTS

(Page 155, "Self-Concept of Ability Scale", not microfilmed at request of author. Available for consultation at Michigan State University Library)

Xavier Antonio Del Buono, Ph.D.
Michigan State University, 1971

INTRODUCTION

Mexican-American educators, parents, and community groups are seeking new and innovative ways to provide better educational opportunities for Spanish-speaking students. Since it is generally accepted that a major obstacle to educational achievement among students from this population is the differences in language and cultural background between themselves and the schools, emphasis is being given to bilingual/bicultural school programs.

The literature in this field reveals many studies of the phenomenon of bilingualism but few studies relate directly to bilingual education and its effect on school achievement and student academic self-concept. However, the literature does reveal several basic constructs related to the achievement and self-concept of bilingual students. It is evident that students from bilingual backgrounds often lack essential communication skills and this has an adverse effect upon their achievement, as measured by standardized tests. Bilingual students are culturally different from other, monolingual students and demonstrate that the values held in the home are different from those held in the community as a whole. These students may have somewhat higher potentialities than monolingual students from a similar environment, but may not be encouraged by their cultural background to value certain personality characteristics which contribute to school achievement in traditional schools. It is also evident from the literature that the student's self-concept may be affected by the conditions of poverty, language difficulties, and migration; and that teachers may have an influence on the self-concept.

PURPOSE OF THE STUDY

The purpose of this study was to probe the relationship of a bilingual/bicultural school program and the achievement and academic self-concept of Mexican-American seventh grade students. The premise held was that Mexican-American students who were taught subject matter in their native language for a portion of the school day and received systematic, sequential instruction in English as a Second Language would achieve greater and have more positive self-concepts of their ability to achieve in school than a similar group of Mexican-American students in a regular school program.

DESIGN OF THE STUDY

The design of this study was descriptive. Pre-existing groups were compared on their mean post-test scores on achievement in social studies, reading, language, and academic self-concept. Data were also gathered on socio-economic status and mental ability of the population sample. In the multivariate analysis of covariance the SES and mental ability were held as covariates and student scores on the *Stanford Achievement Subtests*, *Social Studies*, *Paragraph Meaning*, *Language*; and on the *General Self-Concept of Ability Scale* were used as dependent variables.

FINDINGS

Within the basic framework of this study and the population sample selected, the hypotheses tested provided certain insight as to the relationship of the bilingual/bicultural instructional program and school achievement and academic self-concept of Mexican-American seventh grade students.

In the multivariate analysis of covariance it was found that when the *Stanford Achievement Subtests*, *Social Studies*, *Paragraph Meaning and Language*; and the *General Self-Concept of Ability Scale* were used as the dependent variables to measure school achievement and academic self-concept, there were differences in the group mean scores between students in the program and students in the comparison group. These differences favored the students in the bilingual/bicultural program.

The univariate analysis of variance indicated that differences occurred between the group mean scores in social studies, language, and academic self-concept, but no difference was found in the test for paragraph meaning.

There was no difference in the analysis between the sexes, nor was there significant interaction between sex and treatment.

Although it cannot be stated that the cause for the differences found was the direct effect of the treatment, it can be concluded that Mexican-American

seventh grade students in the bilingual/bicultural program did significantly better in school achievement and had more positive self-concepts of their ability than did Mexican-American seventh grade students in the traditional program.

Order No. 72-8677, 180 pages.

NAVAJO PARENTAL ATTITUDES AND THE EFFECT OF BILINGUAL EDUCATION ON STUDENT SELF-CONCEPT IN SAN JUAN SCHOOL DISTRICT 1969-70

Bert Wootton Nixon, Ed.D.
Brigham Young University, 1971

Chairman: Milford C. Cottrell

One of the problems facing Indian education in the United States is providing Indian students with experiences that will promote the development of a positive self-concept. Associated with this is the problem of Indian parents feeling they have no control over the educational destiny of their children.

The problem of this study was to determine (1) the effect of bilingual education on student self-concept, and (2) the attitudes of Navajo parents toward the schools and the bilingual program in the San Juan School District for the 1969-70 school year.

The data indicated the bilingual program had no noticeable effect on student self-concept. The data also indicated that parents are generally interested in the schools and bilingual program and they feel school is an important institution in meeting the current and future needs of their children. Generally, the parents like what is occurring in the bilingual program.

Order No. 71-24,300, 186 pages.

BILINGUAL-BICULTURAL EDUCATION AND THE SELF-CONCEPT OF MEXICAN-AMERICAN CHILDREN

Meliton Lopez, Ph.D.
Wayne State University, 1972

Adviser: Larry Hillman

PROBLEM

It was the purpose of this study to investigate the relationship between the self-concept of elementary school children and their participation in bilingual-bicultural educational programs. The educational plight of the Mexican-American child in American schools has been traditionally blamed on a variety of factors. Mexican-American children have been viewed as handicapped because of their language, their culture and their value system. There appears to be a "universal" belief among educators that these children suffer from a debilitating self-concept.

Bilingual-bicultural education has been advocated as a viable educational alternative to alleviate some of the educational problems faced by Mexican-American children.

PROCEDURES AND SOURCE OF DATA

To carry out this investigation an experimental design was developed. Two groups of children, matched in terms of grade level, geographical location, age and socio-economic status were selected. One group consisted of children participating in bilingual-bicultural education programs. This was designated as the experimental group.

Another group of children participating in regular educational programs constituted the control group. Within each group there were Mexican-American and Anglo-American children. These groups were further sub-grouped in order to test four operational hypotheses related to the self-concept of children and their participation in bilingual bicultural education programs.

Data relative to the reported self-concept of the subjects were gathered via two instruments designed to measure the self-concept and attitude of elementary school children. These instruments were the *Coopersmith Self-Esteem Inventory* (CSEI) and the *Student Interview Scale* (SIS).

These two instruments were administered on a pre and post-test basis. The data obtained were subjected to appropriate statistical treatments to force out the necessary results to test the necessary hypotheses.

FINDINGS

The major findings of this investigation were:

1. Mexican-American children participating in bilingual-bicultural education programs exhibited a more enhanced self-concept than Mexican-American children participating in regular programs.
2. Mexican-American children and Anglo-American children reported scores that indicated there was no difference in self-concept between the two ethnic groups.
3. Mexican-American and Anglo-American children participating in bilingual-bicultural educational programs reported a more enhanced self-concept than their counterparts in regular educational programs.
4. Anglo-American children participating in bilingual-bicultural education programs reported a more enhanced self-concept than Anglo-American children in regular education programs.
5. Anglo-American children reported self-concept scores which were greater when they constituted a majority in the classroom. The same phenomenon was true of Mexican-American children. Therefore there appeared to be a direct relationship between the reported self-concept of children and the ethnic classroom composition.
6. Anglo-American and Mexican-American children reported a decline in self-concept between grade one and two and between grade two and three. There was a general digression in self-concept from grade to grade as children "progressed" in school.

CONCLUSIONS

1. The bilingual-bicultural education programs are a viable educational alternative for Mexican-Spanish speaking children.
2. The bilingual-bicultural education programs appear to benefit the Anglo-American child as well as the Mexican-American child in terms of the enhancement of their self-concept.
3. The bilingual-bicultural education programs appear to enhance the self-concept of all children regardless of their ethnic background.
4. The self-concept of Mexican-American children appears to be no different than that of Anglo-American children of equal characteristics.

5. The self-concept of children, regardless of ethnic background or program appears to decline the longer a child stays in school.

RECOMMENDATIONS

1. The bilingual-bicultural education programs should be implemented in schools where Mexican-American children constitute a substantial number among the student population.
 2. The bilingual-bicultural education programs should be considered as enrichment rather than remedial programs.
 3. The public schools should change their traditional posture of considering Mexican-American children as suffering from a debilitating self-concept.
 4. The Mexican-American culture, the value system and the Spanish language should be accepted in the public schools which serve Mexican-American children.
 5. The Anglo-American children and other monolingual English-speaking children should be encouraged to participate in bilingual-bicultural programs.
 6. The public schools should more openly accept the concept of a pluralistic society in the United States.
 7. The individual classroom should be carefully analyzed to insure ethnic balance so as to provide a better climate for self-concept development.
- Order No. 73-12,562, 158 pages.

SELF PERCEIVED AND ASCRIBED CHARACTERISTICS OF MEXICAN-AMERICAN, ANGLO, AND BICULTURAL COLLEGE STUDENTS

James Edward Rudolph, Ph.D.
St. John's University, 1972

STATEMENT OF THE PROBLEM

This is a study of the interethnic perceptions of Mexican-American, Anglo-American and bicultural college students. One purpose of the research was to determine the extent to which ascribed characteristics derived from previous minority group studies involving French-Canadian, Negro and Jewish subjects applied to Mexican-Americans. Foremost among these characteristics is that of self-denigration. Measuring the degree of psychological impact on the self-image of the self-denigrated person as a result of racial prejudice as well as measuring the self-concept of the prejudiced person were other objectives of the study. Of further interest in this study was the degree of ethnocentric ideology in the prejudiced person as compared to the nonprejudiced person and the relationship of the variables of self-concept and ethnocentrism. The relationship of social distance toward Spanish speakers by Anglo-Americans and number of years of formal Spanish were other variables investigated.

METHODS

Four test scores were obtained for all 245 subjects. The scores were three measures of self-regard on Bills' *Index of Adjustment and Values* and a measure of ethnocentric ideology was obtained from the *Ethnocentrism (E) Scale*. The subjects were 140 female and 105 male college students attending the 1968 summer session at the University of Texas at El Paso. The subjects consisted of 113 Anglo-Americans and 101 Mexican-Americans and 31 bicultural students.

Interethnic perceptions were obtained by asking the subjects to rate the personalities of Spanish and English speakers on tape, utilizing a rating scale of one to four (low to high) on 16 personality traits. The technique involved the taped voices of four nearly perfect bilinguals (two male and two female) who had taped a passage in Spanish and in English so that a matched pair of guises resulted for each bilingual person taped. The subjects were led to believe that each guise was the voice of a different person so that four actual bilinguals were presented as eight speakers. The voices from the same person were maximally separated in the series presented to avoid consecutive voices from the same person. The subjects were also asked to indicate social distance preferences for each speaker on a modified *Bogardus Social Distance Scale*.

Sadler's A test was applied in comparing mean trait ratings for Spanish and English speakers for the hypotheses pertaining to interethnic perceptions. An analysis of variance design was applied in testing four hypothesized relationships with self-concept scores and ethnocentrism scores for the various groups. A correlated t test was utilized in comparing social distance, language study, and sex of subjects and speakers.

RESULTS AND CONCLUSIONS

Eight of 14 hypotheses were supported by the data obtained.

1. Mexican-Americans perceived English speakers as possessing better judgment, greater prestige and as more industrious and ambitious than Spanish speakers, as hypothesized.

2. Anglo-Americans, as hypothesized, downgraded Spanish speakers by perceiving them as significantly less friendly, clean, ambitious, generous, temperate and as having less of a sense of humor than English speakers.

3. The bicultural group (one parent a native speaker of Spanish) as hypothesized, because of dual allegiance to both groups, remained neutral in rating English and Spanish speakers.

4. No significant differences were found among the ethnic groups on the variables of self-concept and ethnocentrism and as a result four hypotheses involving these variables were not supported.

5. High raters of Spanish speakers among Anglo-Americans had received significantly more years of formal Spanish instruction which appears to lend support to Lambert's notion of integrative motivation in second language study.

6. In conclusion, feelings of self-denigration were found to exist among Mexican-Americans, but not to the extent expected.

Order No. 72-31,039, 178 pages.

THE EFFECTS OF A BILINGUAL-BICULTURAL EDUCATION PROGRAM ON ACADEMIC SUCCESS AND SELF-ESTEEM

John Stanley Rogers, Ph.D.
United States International University, 1973

Chairman: Bernice Roberts

THE PROBLEM

Every fall in the U.S. thousands of children who enter school for the first time are faced with a strange language they do not understand—English. Teachers have used several approaches in an effort to help these children. Teaching English as a Second Language (ESL) was employed in the belief that, since all children need to learn English, schools should devote much of their time to teaching

in and through English. When ESEA was amended to provide grants specifically for bilingual education (Title VII), many projects were initiated with these funds. One of the major emphases of the bilingual-bicultural program was that the child develop a positive self-concept as a person and as a learner. It was the purpose of this study to attempt to discover which of two approaches to language education, Bilingual and ESL, was most effective in developing academic achievement and positive self-concept in children with limited English speaking ability.

METHODOLOGY

This study used Campbell's Static-Group Comparison Design, in which a group that has experienced X (in this case, Bilingual education) was compared with one which had not, for the purpose of establishing the effect of X. Four hypotheses were proposed which stated that there would be no statistically significant difference in the appraisal of the self-concept and academic achievement for the Spanish-speakers and English-speakers in the ESL and Bilingual programs.

The subjects were students from six elementary schools in the south bay area of San Diego County. They were pupils with 20 different teachers from three neighboring school districts—South Bay, National, and Chula Vista. These particular schools were chosen as they had in attendance a relatively large percentage of Spanish-speaking students. Pupils in the first grade were used in the testing as the Bilingual program had been in progress for only two years.

One hundred nineteen Spanish-speakers took a Spanish version of Cooper-smith's Self-Esteem Inventory. Two hundred eighty-two English-speakers took the same test in English. Three hundred ninety-four English-speakers were given the California Cooperative Reading Test Form 12A to measure school achievement, and 103 Spanish-speakers were given a Spanish version of the Stanford Early School Achievement Test Level II.

RESULTS

Using the t-test and analysis of variance, eight statistically significant determinations between the two groups resulted. Three hypotheses were not accepted at the .01 level of significance, and one was not accepted at the .05 level. The statistical difference in the means of the two groups seemed to indicate: (1) that the Bilingual Program did produce a higher self-concept for Spanish-speakers and English-speakers, too; (2) that the Bilingual Program developed higher academic achievement for Spanish-speakers; and (3) that the ESL Program contributed to higher achievement for the English-speakers.

This study strongly supports the theory that instruction should begin where the child is educationally, hence in the Spanish language if that is what he

understands. But even more important than academic achievement is the superior growth shown in positive self-concept. If the child likes himself and can accept himself regardless of his level of abilities, he will be better prepared to develop those talents.

Order No. 73-22,688, 90 pages.

A COMPARISON BETWEEN THE SELF CONCEPT OF MEXICAN AMERICAN PUPILS TAUGHT IN A BILINGUAL PROGRAM AND THOSE TAUGHT IN A MONOLINGUAL PROGRAM

Albright, Vatia Harrison, Ed.D.
The George Washington University, 1974

The major purpose of this study was to compare the self concept scores of Mexican American pupils taught in a Bilingual Program (Project Language) and those taught in a Monolingual Program. Additional objectives include a determination of the difference in Achievement and Intelligence Quotients for these groups of students.

A random sample of 100 students (20 from each grade, one through five) from the Bilingual Program and 100 students (20 from each grade, one through five) from the Monolingual Program, who attended school in the Weslaco Independent School District, Weslaco, Texas, was tested, using the Piers-Harris Children's Self Concept Scale (P-HCSCS). Additional information was obtained concerning the scores on the Stanford Achievement Test, the Lorge-Thorndike Intelligence Test, and the Otis Quick-Scoring Mental Ability Test.

Correlational techniques and "t" tests were used to ascertain whether or not significant differences in self concept (P-HCSCS) scores occurred between school programs, IQ scores, and achievement scores. The major findings were:

1. With one exception, the first grade, students in the Bilingual Program and those in the Monolingual Program did not differ significantly in their self concept scores.
2. The self concept is not affected significantly by such variables as maturity or school experience from grades one through five.
3. Eliminating the sporadic rise in the third grade, the variances of the scores increase with each grade level for the bilingual groups.
4. There was no statistically significant difference between the bilingual and monolingual groups, grades two through five, as indicated by the Stanford Achievement Test scores or Intelligence Quotients.

5. Findings concerning the relationship between the self concept scores and achievement scores in the four grades of the Bilingual Program indicate a higher correlation than in the relationship of the self concept scores and achievement scores of the students in the monolingual groups.

The following conclusions are drawn from the findings:

1. Mexican American students have a positive self concept as measured by the P-HCSCS administered in Spanish and English.

2. The Bilingual Program has apparently had no greater effect on improving the self concept of the Mexican American student than the Monolingual Program.

3. The self concept is relatively stable from grades one through five.

4. There is low correlation between self concept and achievement when the variable of intelligence is partialled out.

5. The Bilingual Program may be exerting an appreciable influence on the variation of performance of the bilingual students. The emergence of this phenomenon poses a challenging hypothesis to be pursued.

Order No. 75-12,605, 81 pages.

EVALUATION OF A BILINGUAL BICULTURAL EDUCATION PROGRAM

Gilbert J. Velasquez, Ph.D.

United States International University, 1974*

Chairman: Bernice Roberts

THE PROBLEM

The problem of the study was based on the high incidence of failure among disadvantaged students in local district schools. Research indicates that one key to preventing failure is adapting instruction to the learning needs of each child. Furthermore, if the educational needs of children who have limited English-speaking ability, who come from environments where the dominant language is one other than English, and one who comes from low-income families,

* Author completed degree requirements in 1973, but degree will be granted in 1974.

are to be met, Bilingual Education is the most promising solution to the achievement gap.

The three main objectives of the study are the following: 1. To determine the academic achievement in Spanish and in English languages among Mexican Americans and Anglo American pupils. 2. To determine the self-concept among Mexican American and Anglo American pupils. 3. To record reactions via interview the way parents, students, and teachers react to the bilingual program. The importance of the study derives from the fact that bilingual education is at the neophyte stage, little is known about the variables essential to building successful bilingual programs.

METHODOLOGY

All achievement data were secured from the Bilingual Education Center Evaluation files, including self-concept data and interview schedules.

This study was based on an evaluation of ex post facto data. It was conducted with hypotheses for significant differences with an Analysis of variance (ANOV) and the tests analyses. This study uses school achievement as dependent variables (standardized test scores) on the pre post basis. Years in school, sex and ethnic group were used as independent variables while standardized tests were used as dependent variables.

The self-concept studies utilizes the Campbell's Static Group Comparison Design while the interview schedules used were both structured and non-structured.

The subject groups were children enrolled in three elementary school districts and a secondary school district, levels K-3 and 7-12. The majority of the children were predominantly Mexican American. Twenty percent of the children however were Anglo American as per guidelines for participants.

RESULTS

Analysis of data resulted in 59 statistically significant hypotheses out of a total of 80. In the achievement studies, the English as well as the Spanish speakers in the primary (3rd) and secondary (7-12) grades made significant gains. The Pre-Post Studies revealed that the English and Spanish speakers in grades Kindergarten through Third made significant gains in the English language. None of the groups was higher than the other. The Spanish speakers, however, in grades Kindergarten through Third and Seventh through Twelfth made higher gains in the Spanish language.

The Self-Concept hypotheses revealed significant gains for all bilingual students in the program while the Interview Schedules performed with the students, parents and teachers indicate positive reactions to the program.

Three main conclusions resulted from the study. Evidence indicates that: 1. The Mexican American as well as the Anglo American students are reading in the English language as well as Spanish after having experienced a Bilingual Education Program for three years. 2. The self-concept of Mexican American as well as Anglo American children is enhanced in a Bilingual Program. 3. Parents and teachers feel positive about the program and want the program to continue.

The inferences which are being made about the present program at the end of its third year of operation will necessarily be tentative. A Bilingual Education Program and its evaluation need to be carried out over a far longer period of time.

The evidence presented herein indicates that Bilingual Education has, in fact, a positive effect on children's performance and self-concept.

Order No. 73-29,996, 218 pages.

A BICULTURAL APPROACH TO THE ISSUE OF SELF-CONCEPT ASSESSMENT

Arias, Maria Beatriz, Ph.D.
Stanford University, 1976

Psychologists and educators have attempted to assess the effects of the acculturation process on children. With respect to the Mexican American child, their findings have generally been that the acculturation process places unusual amount of stress on the child. This stress in turn has had a negative effect upon the child's performance in school and in his self-concept.

The purpose of this study is twofold; first, to further the understanding of the acculturation process as it related to the concept of "biculturalism", and second, to assess the self-concept of Mexican American Anglo American children with a culturally relevant self-concept measure. A bicultural perspective of the acculturation process views the acquisition of another cultural system not as a process of replacement, but rather as the simultaneous acculturation of the individual to two different value systems. In order to adequately assess the self-concept in the bicultural child, one needs to consider that the child is influenced by two socialization systems. For example, in the case of the Mexican American child, at home the traditional Mexican values may be appropriate, and at school, the Anglo American values may be appropriate.

Research on the self-concept of the Mexican American child has stressed that

these children suffer from a negative self-image. A factor which may be affecting the assessment of the self-concept of Mexican American children and the generalizations therein are the types of instruments which have been used to assess the self-concept. In general, these instruments are monoculturally oriented and little has been developed in the way of a culturally relevant or linguistically appropriate instrument.

This study utilized the Bicultural Inventory of Self-Concept (BISC) to assess the children's self-concept. This instrument consists of two subtests; one relevant to Anglo American situations and the other to Mexican American situations. Each student has an equal number of items in the home, school and general domains.

The cultural identification of the child was assessed by the Cultural Identification Scale (CIS), which taps the areas of language usage, preferred associations and heritage. Both the CIS and the BISC consists of thirty-six items and are available in English and Spanish versions.

The results of the Cultural Identification Scale indicate that children of two ethnic groups have varying degrees of cultural identification. Anglo American children differ significantly from Mexican American children in their language usage and heritage but show a tendency to prefer to associate with children of both ethnic groups. Sixteen percent of the Mexican American children identify with the Anglo culture, fifty-one percent are Bicultural and thirty-three percent identify with the Traditional Mexican culture.

The results for the self-concept questionnaire indicated that children with different cultural identification scored differently on the two subtests. Children identifying with the Anglo culture scored higher on the Anglo-oriented items than children who identified with the Traditional Mexican culture. Conversely, the Traditional Mexican children scored a higher self-concept score on the forms oriented to Mexican situations. The home domain of both forms provided the greatest contrast between the children with different cultural identifications.

The implication of these results is that items in the self-concept questionnaire related to the home domain are most susceptible to cultural variation and thereby may not be assessing the home self-concept adequately. Psychometricians have assumed that the socialization practices from home to school reflect the same set of values. Self-concept questionnaires which are used with Mexican American children must be carefully examined for items assessing the home self-concept. For all educators, an awareness of the possible cultural bias found in self-concept measures is necessary.

Order No. 76-25,969, 142 pages.

ATTITUDES TOWARD BILINGUAL EDUCATION

DEVELOPMENT AND APPLICATION OF A SPANISH-ENGLISH BILINGUALISM ATTITUDE SCALE

(Order No. 70-9707)

Ramon Thomas Mosley, Ph.D.
Texas A&M University, 1969

Chairman: Dr. Donald Barker

A review of literature on bilingualism reveals that from the outset of intelligence testing during the 1920's, researchers and educators tended toward a consensus that monolinguals were intellectually superior to bilinguals. This early majority of professional opinion held that indefinite but inherently harmful effects of bilingualism accounted for the lower scores generally made by bilinguals on tests. The reversal of the direction and effect of professional attitude toward bilingualism during the course of recent decades is evidenced by the fact that the literature scarcely contains any opinion toward bilingualism which is not an unqualified endorsement of its potential worth.

In the United States, educational policies with respect to bilingual minority groups have generally reflected professional attitudes toward bilingualism. The conversion of an educationally deprived bilingual into an educated monolingual, therefore, is no longer a universally held educational objective. Most current educational policies with respect to the Mexican-American pupil are toward the organizing of programs which promise to develop true bilingualism in the bicultural child and, where feasible, in the Anglo-American child.

This dissertation project was an effort to ascertain the attitude held by the lay parent most directly involved in bilingualism and most directly affected by its problems. The undertaking has involved a search for an answer to the question, Does the Mexican-American lay parent tend to share the current professional opinion that bilingualism is an asset that should be cultivated in children?

Following a study of the literature, the first step taken was to design a feasible instrument for measuring attitudes toward bilingualism on the part of both Anglo and Mexican-American subjects, and which would facilitate further research into similar problems. To this end a preliminary, 50-item attitude-toward-bilingualism scale was formulated and applied, along with a biographical

data questionnaire, to 64 Anglo and 47 Mexican-American parents of elementary school children. These 111 subjects were selected from comparable socioeconomic backgrounds.

The item analysis which followed this application identified the 20 items with the best operating characteristics. These 20 items comprised the final attitude-toward-bilingualism scale which was administered by interview to an additional sample of 51 parents of elementary pupils. This sample was selected from the parents of children attending the Bowie School in Bryan, Texas, a school which is predominately Mexican-American in pupil enrollment.

The analysis of the data obtained from the application of the 20-item scale and additional information obtained through the interviews led to the following conclusions:

1. The parents of the pupils attending the Bowie School in Bryan, Texas, have a highly favorable attitude toward bilingualism. These parents desire that their children retain the degree of bilingualism which they now have and perfect it into true bilingualism through appropriate schooling.

2. The degree of favorable or unfavorable attitude toward bilingualism held by these parents is not significantly dependent upon any of the following selected characteristics: (a) sex (whether father or mother reported), (b) childhood residence of reporting parent, (c) language used during childhood, (d) amount of formal education of parent, (e) language atmosphere of schools attended (whether bilingualism was encouraged or discouraged), (f) educational aspirations for own children, (g) church preference, (h) language preference (whether respondent preferred to fill out the Spanish form or the English form of the attitude scale during the interview).

3. The Bowie School and similar elementary schools in the American Southwest, with significant percentages of Mexican-American pupils, should establish bilingual programs at the earliest opportunity to comply with present-day professional opinion and the wishes of the school patronage.

M \$3.00; X \$4.60. 86 pages.

THE INSTRUCTIONAL PROCEDURES OF AND THE ATTITUDES TOWARD BILINGUAL EDUCATION IN SELECTED ELEMENTARY SCHOOLS IN THE LOS ANGELES UNIFIED SCHOOL DISTRICT

Frances Maddox Boyer, Ed.D.
Brigham Young University, 1972

Chairman: Norman F. Hyatt

The purposes of this study were to identify the instructional procedures and the attitudes toward those procedures used in bilingual education through responses from four questionnaires. They were completed by administrators, teachers, parents, and students from a selected sample of eight schools, in the Los Angeles City Schools, 1971-72.

The questionnaire responses were tabulated and used as the bases of identification. The eight schools' responses indicated each school participated in from six to twelve of the fourteen identified instructional procedures. Responses considering parents' attitudes toward school programs used were mostly positive and knowledgeable. Students' attitudes toward subject matter, enjoyment of school and perceived language abilities had varied responses with frequencies from one to twenty-six.

Order No. 72-32,643, 108 pages.

A STUDY OF THE RELATIONSHIP BETWEEN TEACHER PERCEPTIONS AND BICULTURAL/BILINGUAL AFFECTIVE INTERACTION IN THE CLASSROOM

Augustine García, Ph.D.
The University of New Mexico, 1972

THE PROBLEM

Many school districts and teacher education institutions are initiating bicultural/bilingual teacher inservice training programs. Generally, these programs include two kinds of objectives. The first are "orienting" objectives, such as the development of cultural awareness and Spanish proficiency, to be achieved during the instructional period. Secondly, "performance" objectives are those which are assumed to be reached in the classroom, as a result of the achievement of the "orienting" objectives. This assumption has yet to be investigated.

Statement of the problem: The primary purpose of this study was to determine whether there was a relationship between teacher perceptions of the combined elements of bicultural/bilingual education and bicultural/bilingual affective interaction in the classroom. The study involved teacher perceptions of: 1) cultural differences among children, 2) the value of bicultural/bilingual education, and 3) self-adequacy in teaching biculturally-bilingually.

The secondary focus of the study was on change in teacher perceptions of each element of bicultural/bilingual education during a six-week instructional period.

A conceptual model: The study was based on Combs model, which states that all teaching behavior is the result of teacher perceptions of: 1) her students; 2) the teaching situation; and 3) self-adequacy in the situation.

Hypotheses: The primary null hypotheses for the study were concerned with the relationship between teacher perceptions and 1) indirect teacher influence in English; 2) indirect teacher influence in Spanish; 3) direct teacher influence in English; 4) direct teacher influence in Spanish; 5) student verbal involvement in English; 6) student verbal involvement in Spanish; 7) student nonverbal involvement; and 8) student noninvolvement. The secondary null hypotheses for the study were concerned with changes in teacher perceptions of each element of bicultural/bilingual education during the instructional period.

PROCEDURES FOR THE STUDY

The design of the study included a primary focus and a secondary focus. In order to investigate the primary focus, two experimental groups were selected from a sample of twenty-one teachers, on the basis of their post-test perception scores. Experimental Group One consisted of eight teachers with the most accurate perceptions, while Experimental Group Two consisted of eight teachers with the least accurate perceptions, as compared with those of a panel of experts. Pre- and post-tests were used to investigate the secondary focus, that of changes in teacher perceptions.

The sample: Twenty-one teachers in an inservice training program in Albuquerque, New Mexico in the summer of 1971, and their students, were selected as the sample.

The instructional period: During this six-week period, five components were included: 1) cultural awareness; 2) theory of bicultural/bilingual education; 3) bicultural/bilingual teaching competency; 4) Spanish for the classroom; and 5) professional level Spanish.

Collection of the data: Perception data were collected at the beginning and at the end of the instructional period, using the Teacher Perception Questionnaire. Interaction data were collected in the classrooms, from November, 1971 to March, 1972, using the Douglas Interaction Analysis.

FINDINGS

All but two of the primary null hypotheses were rejected—Hypotheses Five and Seven. All of the secondary null hypotheses were rejected.

RECOMMENDATIONS

It is recommended that the emphasis in teacher inservice training in bicultural/bilingual education be placed on the development of accurate teacher perceptions. It is further recommended that teachers be helped to analyze their own behavior and that of their students, in order to change it, if necessary, to maximize student verbal involvement in English and/or Spanish.

Order No. 73-8367, 196 pages.

ATTITUDES TOWARD BILINGUAL EDUCATION: A STUDY OF PARENTS WITH CHILDREN IN SELECTED BILINGUAL PROGRAMS

Lorraine Padilla Cutiérrez, Ph.D.
The University of New Mexico, 1972

STATEMENT OF THE PROBLEM

The purpose of this study was to investigate attitudes of parents, whose children were in bilingual programs, toward bilingual education. The study also sought to find if differences existed between income groups in attitudes related to sex, age, mobility, and education.

PROCEDURE

Two hundred and twenty persons (or 110 pairs of parents) whose children were in bilingual programs in ten schools in the Albuquerque Public School System comprised the sample. They were divided into two socioeconomic groups based on occupation, lower-middle and upper-lower, and subdivided by sex, age, mobility and education. A sixty-three item questionnaire was administered to each pair of parents by a trained Spanish-speaking interviewer. The questionnaire was simultaneously given to both parents at their home. All of the responses were obtained within a two-week period in order to prevent time from being a variable that might have produced differences in attitudes. The t-tests were used to determine whether significant differences existed between the two groups.

RESULTS

The mean scores for the total population were high on most of the statements, indicating an homogeneous positive attitude toward bilingual education. There were few significant differences between socioeconomic groups. Of the other independent variables, age produced the most significant differences. This indicated that those under age 35 were more positive in their attitudes than were the older group. Those under age 35 spoke less Spanish with their children but had a more positive attitude toward bilingual education. Amount of education did not seem to alter this attitude significantly. In several instances, however, the amount of mobility significantly affected the response toward certain statements. The lower socioeconomic group reflected stronger attitudes on several statements than the middle socioeconomic group.

CONCLUSIONS

This study indicated that parents enthusiastically approved of the ongoing bilingual and bicultural programs to which their children were being exposed. The attitudes of the parents in this sample demonstrated a strong sentiment for becoming or remaining a bilingual-bicultural society. Exposure to bilingual education for both groups produced a highly favorable response.

Order No. 72-30,728, 180 pages.

THE ATTITUDES OF SELECTED MEXICAN AND MEXICAN-AMERICAN PARENTS IN REGARDS TO BILINGUAL/BICULTURAL EDUCATION

William Adorno, Ph.D.
United States International University, 1973

Chairman: Thomas A. MacCalla

PURPOSE

The study was undertaken to gain insights into parent understanding, attitudes and perceptions relative to bilingual/bicultural education. More specifically, the study assessed parent understanding of the main components of bilingual education; it assessed their attitudes relative to the use of Spanish as a medium

of instruction; and it assessed their perceptions as to the importance of their children learning the English and Spanish languages and knowing about the cultures of the United States and Mexico.

The importance of the study derives from the fact that the bilingual educational approach is increasingly being seen by some educators as a viable solution to the educational problems of our non-English-speaking student population. In general, very little research has been done in the area of community attitudes towards bilingual/bicultural education. This, in spite of the fact that these programs have been on the increase since the advent of the Bilingual Education Act of 1967. This study will be of significance to those educators trying to better assess community feelings in regards to these programs.

METHODOLOGY

Data for the study were secured through personal interviews with the sample population. The seventy-five parents involved in the study were from the San Diego, Santa Ana and Oakland areas of California. Two questionnaires were used during the interviews, one to gather demographic and socio-cultural information about the respondents and the other to assess understanding, perception and attitudes relative to bilingual/bicultural education. Given the descriptive nature of the study analysis of the data was through percentages and proportions. Item analysis was used in interpreting the qualitative data of the study.

Hypotheses were as follows: (1) There will be no difference between what the selected parents understand by bilingual education, in terms of recognized components of bilingual education and the understanding of bilingual education as defined in the Guidelines to the Bilingual Education Program, Title VII, Elementary and Secondary Education Act of 1965, as amended in 1967. (2) There will be no difference in the reasons parents give as to the importance of English for their children when compared to the reasons they give as to the importance of Spanish for their children. (3) There will be no difference in the reasons parents give as to the importance of their children learning about Mexican culture when compared to the reasons they give as to the importance of learning about the culture of the United States.

RESULTS

Hypotheses 1 and 2 were rejected and Hypothesis 3 was neither accepted or rejected. With respect to Hypothesis 1 the findings showed that the parents of this study were seeing bilingual education from the perspective of one component as opposed to three possible components implied in the Title VII guidelines. As regards Hypothesis 2, the findings showed that the parents of this study were seeing the importance of English for their children from the framework

of practical or pragmatic considerations, whereas they were seeing the importance of Spanish for their children from the framework of idealistic or personal considerations. With reference to Hypothesis 3 the findings showed that parents were perceiving the importance of their children knowing about the United States and Mexican cultures from the framework of both practical and Idealistic considerations. Lastly, the findings revealed that parents of this study were largely in favor of the use of Spanish as the medium of instruction with children with no knowledge of English.

Order No. 73-22,653, 225 pages.

AN IN-DEPTH SURVEY OF THE ATTITUDES AND DESIRES OF PARENTS IN A SCHOOL COMMUNITY TO DETERMINE THE NATURE OF A BILINGUAL-BICULTURAL PROGRAM

Rafael Abeyta Carrillo, Ph.D.
The University of New Mexico, 1973

THE PURPOSE OF THIS STUDY

The major purposes for this study were four:

- 1) To ascertain by interview the language currently spoken in home and community of a given public school, and to determine the extent of use of both Spanish and English.
- 2) To identify the attitudes and wishes of parents about the use of Spanish in the public school, and about the formal teaching of Spanish.
- 3) To secure information regarding parents' wishes for the utilization of Spanish cultural materials in the school curriculum.
- 4) To secure opinions of parents, in a stable community and across diverse vocational levels and periods of local residence, about school program content and characteristics.

PROCEDURE

The study design was in two parts: (1) A schedule of 19 statements was mailed to a random sampling of 112 Spanish surnamed families and 45 Anglo families. These schedules were picked up by paid bilingual women, who with this visit, collected selected demographic data and data regarding language used with the child in the domains of home, neighborhood, and church. (2) In addition,

an opportunity was given the respondent to tell why he marked selected questions the way he did. This request was given in as open a manner as possible and was designed to secure some indication of the intensity of attitudes and wishes of the families with children in school. In other words, it was hoped that with this opportunity the school patrons could "speak their piece."

CONCLUSIONS

There are several conclusions of particular relevance to planning a viable curriculum for the Old Town School. The conclusions follow:

That there were more similarities than differences between the two groups.

That the Anglo group changed their residence to a much greater degree than the Spanish surnamed group.

That English was used equally in the home with an increase in the use of English as the children moved into the community.

That both groups desired the school to take responsibility for the teaching and use of Spanish at school, with some less interest in the teaching of Spanish history and culture.

That both groups wished more personal services for their children and more contact with the schools through visits to the home and school.

That the responses in the interviews were expressed in mild non-aggressive remarks which were interpreted to mean that there was no polarization in attitudes and wishes in respect to the program of the school.

Order No. 73-27,786, 121 pages.

VARIOUS FORMS OF SUPPORT AND NON-SUPPORT OF BILINGUAL IMMERSION PROGRAMS IN SCHOOLS

(To obtain a microfiche copy please order directly
from the National Library of Canada at Ottawa)

Duhamel, Ronald Joseph, Ph.D.
University of Toronto (Canada), 1973

The main objectives of the study were: to investigate the structure of individuals' views and their support of bilingual education immersion programs; to validate the theoretical relationship between views and support; to determine the extent to which certain demographic variables and views relate to support of immersion; to examine the differences among four boards of education—

Carleton, Ottawa, Toronto, and Metropolitan Toronto Separate—and five constituencies from each board—administrators, immersion parents (those who had or would have enrolled a child in an immersion program if one were available), non-immersion parents (those who had not or would have not enrolled a child), teachers, and trustees—with regard to both views and support factors; and to refine instruments for the measurement of views, support, and demographic factors related to bilingual education.

Of 928 prospective participants from these boards and their respective constituencies, 625 individuals responded to the questionnaire, a response rate of 64.57%.

The views structure relating to immersion programs consisted of three factors: V.F.I—Immersion: Viable Educational Program, V.F.II—English/French Relations, and V.F.III—Job Security. The support structure relating to immersion programs contained three factors as well: S.F.I—Promotional Activities, S.F.II—Information Seeking, and S.F.III—Involvement in the Educational Process. These factors were obtained by a common factor analysis utilizing varimax rotation.

Seven of the nine possible correlations between the three views factors and the three support factors reached levels of significance of .05 or higher (see table A1).

Table A1 / Correlations between Factor Scores on Views and Support

Views Factor	Support Factor		
	I	II	III
I	0.704 **	0.083 *	0.023
II	0.195 **	0.117 **	0.346 **
III	0.161 **	0.066	0.083 *

* $p < .05$ ** $p < .01$

Several demographic variables, usually but not exclusively those related to socioeconomic status and bilingual/multicultural heritage, were significantly related to the three support factors. However, views factors did explain more significant amount of variance than did demographic measures alone in each of the three support factors (see table A2).

Table A2 / Prediction of Support Factors from Demographic and Views Factors, from Demographic Factors, and from Views Factors

Factors	Multiple R ²		
	S.F.I	S.F.II	S.F.III
Demographic and Views	.6670	.0740	.2840
Demographic	.4529	.0533	.1826
Views	.6107	.0272	.1301

It was also shown that the addition of another view in the regression equations utilizing views only and designed to predict each of the three support factors, accounted for more variance in each criterion variable in four out of six cases. V.F.III—Job Security and V.F.I—Immersion: Viable Educational Program did not account for a significant amount of variance in S.F.II—Information Seeking and S.F.III—Involvement in the Educational Process, respectively.

With regard to comparisons among boards (see table A3), a one-way analysis

Table A3 / Differences among Boards on Views and Support Factors

Factor	Mean Score by Board			
	Carleton	Ottawa	Toronto	Toronto Separate
V.F.I	50.20	50.04	49.63	49.58
V.F.II	49.88	49.84	50.35	50.50
V.F.III	49.86	49.83	50.54	50.28
S.F.I	50.14	49.95	49.82	49.79
S.F.II	50.00	50.02	50.10	49.74
S.F.III	50.00	50.00	49.96	50.05

of variance established that all three views factors were significant at the .01 level. In terms of the support factors, the same statistical technique established that only S.F.I—Promotional Activities was significant ($p < .05$).

With reference to comparisons among constituencies (see table A4), a one-way analysis of variance established that all three views and three support factors were significant ($p < .01$ except for S.F.II where $p < .05$).

Table A4 / Differences among Constituencies on Views and Support Factors

Factor	Mean Score by Constituency				
	Adminis- trators	Immersion Parents	Non-Immer- sion Parents	Teachers	Trustees
V.F.I	49.29	50.66	49.45	49.75	49.72
V.F.II	50.55	49.95	49.73	49.98	50.44
V.F.III	50.24	50.14	49.99	49.72	50.11
S.F.I	49.71	50.61	49.24	49.76	49.96
S.F.II	50.32	50.05	49.90	49.84	50.29
S.F.III	49.74	49.76	50.02	50.42	49.79

The analysis of the open-ended comments submitted by more than 50% of the participants showed that one's support of bilingual education programs appears to be a function of one's views concerning such programs.

The study therefore validates the theoretical relationship between views and support—within certain limitations. Further, it establishes certain differences that exist among boards and constituencies with regard to views and support of immersion programs and suggests certain reasons why these differences appear. These results have both theoretical and practical implications: the views and support factors as well as their relationships may or may not exist in other situations; a consideration of these factors may facilitate successful implementation of immersion programs as well as further development of programs presently in operation.

ATTITUDES TOWARDS BILINGUALISM OF PROJECT ADMINISTRATORS IN THE FEDERALLY FUNDED BILINGUAL PROGRAMS OF TEXAS

Medina, Arturo, Ph.D.
Texas A&M University, 1973

Chairman: L. S. Richardson

A review of literature written prior to World War I, indicated many educators held views that bilingualism was detrimental to the learning process. Bilinguals appeared to score lower on tests of intelligence. This was accepted as *prima facie* evidence of the inherent harmful effects of bilingualism on young children.

After World War I researchers began to question the validity of the earlier studies and the construction of tests of intelligence rather than the bilingualism of the child. Although educational institutions and their policies tend to reflect the views of professional educators, a general acceptance of bilingual education seems to be slow in coming in spite of a general enthusiasm for bilingualism.

Bilingual education is advocated by some professional educators as a solution to the difficulties encountered in the education of the non-English speaking child. Studies show that the self concept of a child and his school achievement are related to the attitudes and expectations of significant others. It has been found by some studies that a disproportionate number of children in the United States who come from non-English speaking backgrounds have low self-concept and progressive retardation in grade level as they advance through the school. Other studies reveal that teachers tend to have a negative attitude toward groups which differ from the norm. However, research also indicates that the values an administrator holds is an important influence on teacher behavior and can also influence pupil behavior. The attitudes toward bilingualism held by administrators working directly with bilingual education needed to be investigated as part of an effort to determine whether bilingual programs should be more widely adopted and whether more college courses for administrators of such programs would be feasible.

This study was an effort to determine what attitudes toward bilingualism were held by administrators of bilingual programs in Texas and an effort to compare these attitudes with those held by professional educators who advocate bilingual programs.

Another purpose was to determine whether personal characteristics such as sex, ethnicity, age, teaching experience, and ethnic composition of a locale

had any relationship to the attitudes held by the administrator of the bilingual program.

It was necessary to select instruments to be used which would be appropriate for the study requirements. The Mosley Attitudes Toward Bilingualism and the Apple Attitude Survey were selected.

The analysis of data obtained led to the following conclusions:

1. Attitudes of administrators toward bilingualism are favorable as compared to the attitudes of advocates.

2. No significant relationship was found between attitudes demonstrated by administrators and the factors of sex, ethnicity, age, teaching experience or ethnic composition of the locale.

3. Possible significant differences were noted on an item-by-item basis. Unfavorable attitudes of administrators toward disadvantaged children in comparison to attitudes exhibited by the advocates of bilingualism were indicated. Other individual items showed a slight difference which need further research for verification.

The following recommendations were made based on the data:

1. Research on the relationship of socio-economic status of bilingual children whose mother tongue is not English and attitudes of administrators towards these children needs to be done.

2. Colleges should engage in programs to encourage and train administrators to work in schools with a predominance of children of other languages and cultures.

3. Administrators should become more acquainted with the latest theories and methods of evaluating whether those students needing or desiring bilingual education are being reached, whether teachers have the preparation necessary for this type of program, and whether the efforts to help the child are successful.

Order No. 74-13,089, 107 pages.

REACTIONS OF BILINGUAL AND MONOLINGUAL SPEAKERS TO ACCENTED AND NON-ACCENTED SPEECH

Del Castillo, Ricardo, Ph.D.
Adelphi University, 1975

The present investigation examined the attitudes and stereotypes as well as sex differences of Spanish-English bilinguals, and of significant English-speaking monolinguals toward the two languages and cultures which confront the bilingual individual.

The subjects in the present investigation were 50 bilingual subjects who met the language criterion, chosen from a larger sample of 112, drawn from undergraduate classes at the University of Puerto Rico and 50 monolingual subjects who met the language criterion, chosen from a larger sample of 87, drawn from undergraduate classes at the State University of New York, College at Old Westbury. There was an equal number of males and females in both samples. All members of the two samples were of a middle-class income. The subjects were all adults with two or three years of college on the average. The age range in both groups was from 18 to 35. There was no significant difference between the ages of both groups.

Bilingualism was defined operationally by means of the scores on the Reaction-Time Test of Bilingual Ability, Self-Rating Scale of Language Ability, and having passed the English section of the College Entrance Exam. Monolingualism was defined in terms of the results of the Self-Rating Scale of Language Ability, and on not having lived in a Spanish-speaking country for more than a few days.

The independent variables in the present investigation were a number of tape recorded voices who read a two minute prose passage in English with a Spanish accent (ES), Spanish with an English accent (SE), English with no accent (E) and Spanish with no accent (S). The speakers were four bilingual individuals, two males and two females. Two of the speakers were native Spanish-speakers and spoke English with a Spanish accent. The other two speakers were native English-speakers and spoke Spanish with an English accent. Subjects were not made aware that there were four speakers instead of eight. This technique has been referred to as the matched-guise technique (Lambert et al., 1960). The dependent variables were obtained by the ratings that the subject gave to a number of personality traits of the given voices. The Personality Traits Inventory was used in order to record the subjects' ratings. The study was described to the subjects as an attempt to assess the possibility of judging personality characteristics by only using the voice of the person. It was mentioned that in order to allow for a greater scope of analysis, the voices would be using both English and Spanish.

The results of the Personality Traits Rating Scale were analyzed by using a 2x2x4 ANOVA for Kirk (1968) PR Q Design. The three variables analyzed were: (1) linguistic category of subjects, i.e., monolinguals vs. bilinguals, (Variable A); (2) type of accent spoken by the taped voices, i.e., (SE), (ES), (E), (S). (Variable B); (3) sex of subjects (Variable C). Variable (B) i.e., type of accent, showed a significant main effect $F(3,228) = 25.59$ $p < .01$. A significant interaction was found between variables AB (bilingual/monolingual vs. type of accent) $F(3,228) = 3.60$ $p < .05$. A Tukey (HSD) Test for significance between pairs of means showed that there was a significant difference in the way both monolingual and bilingual subjects rated guises speaking accented English and accented Spanish. No significant differences were found in the way non-accented guises

were evaluated. The results of the present investigation showed both similarities and differences with previous studies which had used the matched-guise technique with bilingual and monolingual subjects as in some previous studies although not all subjects showed a significant negative evaluation of accented guises. A difference from some prior studies was that in the present study, neither the monolingual nor bilingual subjects saw the primary language as inferior to either Spanish or English. Bilinguals and monolinguals showed a similar pattern of evaluations to the four type of guises. Caution is recommended when comparing the present findings with previous results, since they were conducted in a different cultural setting and bilingual individuals were not members of a minority group, as most of the bilingual subjects in previous studies had been. The matched-guise technique was seen as a useful tool for eliciting stereotypical answers. Nevertheless, it was found that some subjects became aware of the duality of some of the voices. For this reason, it is recommended that subjects be asked systematically at the end of every study whether they perceive the duality of the voices.

Order No. 76-1417, 58 pages.

THE VIEWS OF PUBLIC SCHOOL BOARD TRUSTEES AND SCHOOL SUPERINTENDENTS ON SELECTED ISSUES IN THE AREA OF BILINGUAL BICULTURAL EDUCATION

Juárez, Paul Hill, Ph.D.

United States International University, 1975

Chairman: James M. Thrasher

THE PROBLEM

The purpose of this study was to learn the views of school board trustees and administrators at the superintendency level on selected issues in the area of (English and Spanish) bilingual-bicultural education programs in the elementary, secondary and unified public school districts in California that were funded for a fifth consecutive year during 1973-74 under the Title VII Elementary and Secondary Education Act (ESEA) of 1965, as amended in 1967.

Three areas reviewed in order to accomplish the purpose of the study were (1) the history and educational status of Americans of Mexican descent (Chicanos) in the Southwest, (2) bilingual education in public elementary and secondary schools in California, and (3) the role of school board trustees and administrators at the superintendency level.

The importance of the study derives from the potential significance of bilingual-bicultural education for providing language-minority children with equal educational opportunities, thus reducing the high rate of attrition among persons of Spanish-language heritage, and to provide them, as well as non-Spanish-speaking children, with increased linguistic and cultural learning opportunities.

METHOD

All data were secured from twenty-five questionnaire statements using a five column response form including (1) Strongly Agree, (2) Agree, (3) Undecided, (4) Disagree and (5) Strongly Disagree. A total of thirty-four board trustees, 25 percent, and forty-seven school administrators at the superintendency level, 60 percent, responded from the twenty-one ESEA Title VII funded public school districts in the study.

Research questions were:

1. What are the views of school board trustees and administrators at the superintendency level on selected issues in the area of (English and Spanish) bilingual-bicultural education programs in the elementary, secondary and unified public schools in California that were funded for a fifth consecutive year during 1973-74 under the Title VII Elementary and Secondary Education Act (ESEA) of 1965, as amended in 1967?

2. What are the opinions between school board trustees and administrators at the superintendency level on the items contained in the study?

4. What are the opinions among administrators at the superintendency level on items contained in the study?

5. Are the opinions of the school board trustees and administrators at the superintendency level in the study related to the following factors: a. Position. b. Years in Present Position. c. School District. d. Sex of Respondent. e. Ethnic Background. f. Educational Background. g. Linguistic Background. h. Travel.

RESULTS

A summary of the analysis of the data is contained in Table 26 of the study, including the number and percentage of respondents for each item. The two major conclusions drawn from the study were (1) school board trustees do not favor expanding the bilingual education program in their school districts with local funds and (2) administrators at the superintendency level felt that the major weakness of the bilingual education program is the evaluation component.

Order No. 75-20,250, 292 pages.

A STUDY OF PUERTO RICAN PARENTS' VIEWS ON BILINGUAL/BICULTURAL EDUCATION

Sutherland, Iris Rose, Ed.D.

University of Illinois at Urbana-Champaign, 1975

PURPOSE

The purpose of this study was to investigate the views Puerto Rican parents may have concerning bilingual/bicultural education, and their possible relationship to the economic status, the level of educational attainment, the language loyalty, and the perceived ethnicity of the parents.

PROCEDURES

The population sample was drawn from the Spanish-speaking communities of Chicago, Illinois, and consisted of 134 Puerto Rican parents with children in the public elementary schools of the city of Chicago. The instrument utilized in this study was a bilingual Likert-type, fifty-item questionnaire. The responses received were rated on a five-point scale. Statistics used to analyze the data were frequency counts, percentages, phi coefficient, and chi square.

FINDINGS

The frequency count on the responses to the items on the questionnaire seemed to indicate favorable views toward bilingual/bicultural education by the parents. However, when the scores on the different variables were examined on a 2 x 2 contingency table, the result indicated a nonfavorable view toward bilingual/bicultural education by the majority of parents.

A significant relationship was observed between the parents' income and their preferences for bilingual/bicultural education for their children. A higher percentage of low income parents expressed negative views toward bilingual/bicultural education than the percentage of parents in the high income group.

A significant relationship was noted between the parents' views on bilingual/bicultural education and their level of educational attainment. A larger percentage of parents studied had relatively low educational attainment and negative views toward bilingual/bicultural education than the percentage of parents who had relatively high educational attainment.

The parents' views on bilingual/bicultural education were significantly related to their loyalty to the Spanish language. Parents with relatively weak Spanish

language loyalty displayed a higher percentage of negative views toward bilingual/bicultural education than parents with relatively strong Spanish language loyalty.

The parents' views on bilingual/bicultural education were found to be significantly related to their perceived ethnicity. There was a higher percentage of parents with negative perception of ethnicity with negative views of bilingual/bicultural education than parents with positive perception of ethnicity and positive views on bilingual/bicultural education.

A recommendation offered was that planners of bilingual/bicultural programs give consideration not only to parents' and other community members' views on the proposed programs, but that careful consideration be also given to the identification and evaluation of variables which may have some influence on the consumers' views toward the proposed programs.

Order No. 76-6982, 112 pages.

A STUDY OF ATTITUDES: MEXICAN AMERICAN AND ANGLO AMERICAN ELEMENTARY TEACHERS' JUDGMENTS OF MEXICAN AMERICAN BILINGUAL CHILDREN'S SPEECH

Carter, Ruth Barrera, Ed.D.
University of Houston, 1976

Chairperson: Dr. Zenobia Verner

The purpose of this study was to determine if differences existed in teachers' attitudes toward Mexican American speakers of minimally accented, moderately accented, and highly accented English speech, and if attitudes differed between Anglo American and Mexican American teachers. The study also examined the teachers' formal study in the Spanish language in relation to their attitudes toward children exemplifying three degrees of accentedness in English speech.

One hundred elementary teachers from four schools in two geographical locations in Texas comprised the research sample for this study. Fifty-two Anglo American and 48 Mexican American teachers reacted to each of nine speech samples on the Semantic Differential Instrument. The speech samples used exemplified three degrees of accentedness (as categorized by a panel of judges).

The speech, exhibited by free and spontaneous responses (controlled for content), was that of third and fourth grade Mexican American children from low socioeconomic families who were: (a) native Spanish-speakers; (b) bilingual English/Spanish-speakers, and (c) successful students.

After listening to an audiotape of each speaker, the teachers evaluated the child on 20 bipolar adjectival scales. These scales were intended to reflect distinctions among the characteristics of the nine speakers. The data collected were a result of sessions held by the investigator. Each teacher was involved in only one session.

To determine the judgmental dimensions in the Semantic Differential Instrument, a series of factor analyses were undertaken. The results indicated consideration of the SDI as one judgmental model and was used as the major focus of the study. The model was labeled Global Student Characteristics because its variables characterized the speaker as a student. Additionally, three minor judgmental models were identified, and were considered for comparison with the major judgmental model in the study.

Analyses of variance procedures revealed the following results. First, the study found that there were statistically significant differences in teachers' attitudes toward speakers of minimally accented, moderately accented, and highly accented English. The teachers' ratings exhibited a general bias as follows: (a) minimally accented speakers were rated most favorably; (b) moderately accented speakers received the next favorable ratings; and (c) highly accented speakers received the most unfavorable ratings.

Second, statistically significant differences were found between the attitudes of Anglo American and Mexican American teachers toward children exemplifying different levels of accented speech. The attitudes of the Mexican American teachers were more positive toward all types of speakers than the attitudes of the Anglo American teachers.

Third, the teachers' formal study of the Spanish language did not significantly influence their attitudes toward children who speak with varying degrees of accentedness.

The most noteworthy conclusion is that an "accent" in a Mexican American child's speech did evoke a prejudicial attitude in all teachers, Anglo and Mexican American. Further, this "accent" served as an indicator of the child's academic performance and social status. Teachers utilized speech cues alone to make judgments about the child's ability to learn. They devalued the children relative to the degree of accentedness in their speech—the more pronounced the "accent", the more negative the teachers' judgments were.

The study provided evidence that when compared to Anglo American teachers, Mexican American teachers may possess more positive attitudes toward the children of their own ethnic group. It was also concluded that the teachers'

formal study in the Spanish language did not necessarily affect their judgments toward children who speak with an accent.

The recommendations focused on the reduction or elimination of negative teacher attitudes which equate language variation with educational success. These recommendations have implications for school districts and teacher training institutions.

Order No. 77-1502, 146 pages.

BILINGUAL EDUCATION: AN ANALYSIS OF LOCAL DISTRICT COMMITMENT AND DEVELOPMENT OF AN INDEX OF CRITICAL REQUIREMENTS

Mejia, Reynaldo Daniel, Ed.D.
University of Southern California, 1976

Chairman: Professor Stallings

PROBLEM

The basic concern of this study was to analyze the level of commitment to the concept of bilingual education exhibited by Southern California school districts currently participating in bilingual education as measured by a proposed index of requirements considered to be critical in the planning and implementation of bilingual instruction. A secondary purpose was the development of an index of critical requirements for planning and implementing a bilingual-bicultural curriculum.

PROCEDURE

This study was premised on the assumption that bilingual education is an acceptable alternative to the traditional English-oriented curriculum—especially for children who speak a language other than English. In carrying out the purposes of the study the questionnaire survey procedure was used. The level of local district commitment was measured in terms of the willingness, on the part of school districts, to effect certain aspects of program planning and implementation which were considered germane to the development of bilingual-bicultural education. Eight recommended practices and procedures pertaining to bilingual education were proposed as an index of critical requirements for districts participating in bilingual instruction.

Using the *California School Directory 1975*, locator cards were originally sent to each district in the nine southernmost counties to determine whether or not a program of bilingual education was being implemented. A total of 284 locator cards were mailed out. An affirmative response was indicated on 87 of the original cards. The actual questionnaire was mailed to these 87 school districts. Fifty-eight of the questionnaires returned were useable; this represented a response of 66.7 percent.

FINDINGS

School districts included in this investigation were committed to implementing six of the eight recommended practices which represented a commitment level of 75.0 percent. The item dealing with Parent and Community Participation received the highest level of commitment with 81.0 percent of the districts indicating that this practice was being implemented. Two of the recommended practices received significantly lower levels of implementation and were not considered among those to which the districts were committed. These two dealt with the formulation of School Board Policy in support of bilingual education (50.0 percent) and the development of a Multi-Year Funding Model for financing bilingual education at the local level (43.1 percent).

Final determination for the selection of items included in the Index of Critical Requirements for the implementation of bilingual education was based on data derived from the level of agreement on each of the recommended practices and from the degree of importance ascribed to each of those practices by the respondents. At least 72.0 percent of the respondents agreed that all of the eight recommended items were of sufficient importance to be implemented as a practice in their respective school districts.

CONCLUSIONS

There is a major philosophical disagreement as to the manner in which education should be provided for the non-English speaking child. Bilingual instruction as an alternative program is not a clearly understood concept; definitions need to be made explicit; instructional roles need to be delineated; and the parameters of a bilingual curriculum need to be better defined. The general acceptance of all eight recommended practices suggests the validity of the proposed index as a critical measure for the development and implementation of bilingual education.

RECOMMENDATIONS

School districts involved with the development of bilingual education should become familiar with the basic precepts which form the foundations of bilingual instruction. Continued research is recommended to determine the effects of instruction in a weaker language when a student speaks a language other than English. Exploration should be continued in an attempt to determine the degree of emphasis which may be placed on the mother tongue as a medium of instruction.

ATTITUDES OF MEXICAN-AMERICAN PARENTS TOWARD BILINGUAL EDUCATION

Thomas, Jesse, Ph.D.
The University of Michigan, 1976

Chairman: Charles D. Moody Sr.

PURPOSE OF THE STUDY

The purpose of this study was to focus attention on the attitudes of Mexican-American parents concerning bilingual education. The primary aim was to measure as objectively as possible the basic feelings of parents of Mexican-American children toward bilingual education. Two specific aims were the following: 1. To describe the parents' attitudes toward and beliefs about bilingual education and the degree of parental involvement in a bilingual education program. 2. To investigate certain factors which determine these attitudes toward and beliefs about bilingual education and the degree of parental involvement in a bilingual education program.

PROCEDURE

The study sample consisted of 103 Mexican-American parents. The study was conducted in a school district which is located in the southmost tip of Texas. The school district has a high concentration of Mexican-American parents whose children are enrolled in the local bilingual program.

The data was gathered through the use of a questionnaire which was developed in both English and Spanish for the convenience of the respondents. It

consisted of 43 questions which were categorized into four sections: Information Related to the School, Opinions Toward Bilingual Education, Opinions Toward Education in General, and Information About You and Your Family. The questionnaire sought insights into how informed parents were concerning bilingual education, the sources of this information, and their views concerning such information. It also sought insights into the degree to which parents were involved in school affairs.

It was necessary to create two indices that would measure the attitudes of parents toward bilingual education, since bilingual programs can usually be divided into two general categories. These indices attempted to measure the parents' attitudes toward the maintenance and transitional methods of implementing bilingual programs.

CONCLUSIONS

The findings indicated that Mexican-American parents with children in the bilingual program were supportive of bilingual education and were active in school affairs. Trends indicated that the parents' favorable attitude toward bilingual education was a result of the parent/school relations. Parents who received notices and announcements from the school and talked to friends about bilingual education had a favorable attitude toward bilingual education.

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